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**U.S. Army
Environmental
Center**

VERSION I

Base Realignment and Closure (BRAC) Cleanup Plan

**Fort Sheridan
Fort Sheridan, Illinois**

Prepared for:

**U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010**

Prepared by:

**THE EARTH TECHNOLOGY CORPORATION
1420 KING STREET, SUITE 600
ALEXANDRIA, VIRGINIA 22314**

Unlimited Distribution
Approved for Public Release

1 APRIL 1994

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LIST OF ACRONYMS

ACM	Asbestos-Containing Material
AGT	Aboveground Tank
AOC	Areas of Concern
AR	Army Regulation
ARAR	Applicable or Relevant and Appropriate Requirements
AREE	Areas Requiring Environmental Evaluation
AST	Aboveground Storage Tank
bgs	Below Ground Surface
BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
BEC	BRAC Environmental Coordinator
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Comprehensive Environmental Response Facilitation Act
CFR	Code of Federal Regulations
CRP	Community Relations Plan
COE	Corps of Engineers
CSA	Coal Storage Area
DD	Decision Document
DENIX	Defense Environmental Network Information Exchange
DERA	Defense Environmental Restoration Account
DLA	Defense Intelligence Agency
DOA	Department of Army
DoD	Department of Defense
DOL	Directorate of Logistics
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
ENPA	Enhanced Preliminary Assessment
EOD	Explosive Ordnance Disposal
FFA	Federal Facility Agreement
FS	Feasibility Study
IAC	Illinois Administrative Code
IEPA	Illinois Environmental Protection Agency
INAI	Illinois Natural Areas Inventory
IRDMIS	Installation Restoration Data Management Information System
IRP	Installation Restoration Program
ISA	Initial Screening of Alternatives
LTM	Long Term Monitoring
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
OEA	Office of Economic Adjustment

LIST OF ACROYNMS

Continued

NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	National Environmental Policy Act
NFA	No Further Action
NFRAP	No Further Action Planned
NPDES	National Pollutant Discharge Eliminary System
NPL	National Priority Listed
NRC	Nuclear Regulatory Commission
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
PIRP	Public Involvement Reponse Plan
PNA	Polynuclear Aromatic Hydrocarbons
POL	Petroleum, Oils, and Lubricants
PP	Proposed Plan
ppm	Parts Per Million
RA	Remedial Action
RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RDX	Research and Development Explosive
RFA	RCRA Facility Assessments
RFI	RCRA Facility Investigations
RI/FS	Remedial Investigation/Feasibility Study
RMIS	Army Information Management System
ROD	Record of Decision
RPM	Remedial Project Manager
SARA	Superfund Amendments and Reauthorization Act
SI	Site Investigation
SPCC	spill prevention, control and countermeasure
STP	Sewage Treatment Plant
SWMU	Solid Waste Management Unit
TAG	Technical Assistance Grant
TERC	Total Environmental Restoration Contracts
TRC	Technical Review Committee
TSCA	Toxic Substances Control Act
USAEC	U.S. Army Environmental Center
USACE	U.S. Army Corps of Engineers
USAEHA	U.S. Army Environmental Hygiene Agency
USEPA	U.S. Environmental Protection Agency
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

Introduction

This Base Realignment and Closure (BRAC) Cleanup Plan (BCP) contains the status, management and response strategy, and action items related to Fort Sheridan's ongoing environmental restoration and associated compliance programs. These programs support full restoration of the installation property, which is necessary to meet the requirements for property disposal and reuse activities associated with the closure of the installation. The scope of the BCP considers the following regulatory mechanisms: the BRAC Act; National Environmental Policy Act (NEPA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Community Environmental Response Facilitation Act; Resource Conservation and Recovery Act; and other applicable laws.

The BCP is a planning document and was developed by the BRAC Cleanup Team (BCT) consisting of the U.S. Army, U.S. Environmental Protection Agency, and representatives of the State of Illinois. The information and assumptions presented may not necessarily have complete approval from the U.S. Army and/or federal and state regulatory agencies. The BCP is a dynamic document that will be updated regularly to reflect the current status and strategies of remedial actions. This document is the first in a series of updates/modifications and represents conditions and strategies as of March 1994.

Status of Disposal, Reuse, and Interim Lease Process

Fort Sheridan, a BRAC 88 installation, closed on 1 June 1993. The disposal of Fort Sheridan involves three interrelated activities: the NEPA documentation process, development of a disposal plan, and development of a community reuse plan. The first two items are the responsibility of the U.S. Army. The third is the responsibility of the Joint Planning Committee created by the cities of Lake Forest, Highwood, Highland Park, and Lake County for the purpose of developing a plan for reuse and redevelopment of the installation. An environmental impact statement for the closure of the Fort and an environmental assessment (EA) addressing the disposal and reuse of Fort Sheridan property have been completed. The NEPA process will be completed when a finding of no significant impact is finalized. The U.S. Army has outlined alternative disposal and reuse scenarios in the EA and the disposal plan is based on a schedule pointing to an August 1995 disposal date. The Joint Planning Committee has opened the reuse planning process to public review and are reviewing various reuse plans put forward by an earlier authorized planning group, the Fort Sheridan commission, and others. A final community reuse plan has not been developed.

Future property disposal methods at Fort Sheridan may include competitive sale, no cost public benefit conveyance, and legislative property exchange.

Status of Environmental Restoration Program

There are 34 areas requiring environmental evaluation (AREEs) in the BRAC portion of Fort Sheridan disposal and reuse parcels. These AREEs include landfills, vehicle storage areas, coal storage, chemical and other material storage areas, and underground storage tanks (USTs) among others. All USTs have been removed from the disposal and reuse parcels. USTs in operable units (OUs) 1 and 2 are in the closure process. OU 1 is awaiting final approval of the closure report. The closure report for OU 2 is in preparation and will be submitted when remediation activities are complete. No other OUs have been designated to date for the Fort Sheridan disposal and reuse parcels. Asbestos abatement is continuing and leaking polychlorinated biphenyl (PCB) transformers have been removed.

Key Restoration and Transferability Strategies and Schedules

Fort Sheridan has shifted its focus from the activities of an active installation to development of compliance and restoration activities for disposal and reuse of the property. The BCP strategies are currently being implemented to focus restoration activities towards final transfer of installation property. Strategies for determining the most effective responses for contaminant sources and contaminated areas at the installation have been performed on a case-by-case basis by the Project Team. A comprehensive strategy to identify appropriate regulatory programs applicable to the areas of contamination discovered during the restoration program is being developed and will be updated as necessary.

Summary of Current BCP Action Items

Table ES-1 provides a listing of recommendations and issues associated with environmental restoration, compliance, and technical/management action items that require further evaluation and implementation by the BCT/Project Team. Bottom up review program numbers specified in the Department of Defense BCP Guidebook which relate to each action item are identified in the table.

TABLE ES-1. BCT/PROJECT TEAM ACTION ITEMS

Action Item	Status		
	Program Review Item	In Progress	To Be Performed
COMPLIANCE ACTIVITIES			
UST Removal/Compliance	7	×	
Unexploded Ordnance Clearance	7		×
PCBs	7		×
Lead-Based Paint Survey	7		×
Hazardous Materials/Waste Management	7		×
Evaluate need to update natural resource (biological) data	7, 16, 17		×
CERCLA 120(H)(3) CONSIDERATIONS			
Suitability for Property Transfer - Update environmental conditions map as remediation is completed	28		×
Evaluate alternatives to reduce potential health risk concerns Landfill 3/4	22, 23, 24		×
COMMUNITY RELATIONS			
Update community relations plan	14, 30		×
Establish Restoration Advisory Board	14	×	
MANAGEMENT AND ADMINISTRATIVE SUPPORT ACTIVITIES			
Establish and maintain Defense Environmental Network Information Exchange for information management	21		×
Prepare conceptual site models	22		×

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CHAPTER 1

► INTRODUCTION AND SUMMARY ◀

The purpose of this BRAC Cleanup Plan (BCP) is to summarize the current status of the Fort Sheridan environmental restoration and associated environmental compliance programs and present a comprehensive strategy for implementing response actions necessary to protect human health and the environment. This strategy integrates activities being performed under both the Installation Restoration Program (IRP) and the associated environmental compliance programs to support full restoration of the post. The BCP is a dynamic document that will be updated regularly to incorporate newly obtained information and will reflect the completion or change in status of any remedial actions. This iteration of the BCP was prepared with information available as of March 1994.

This BCP is a planning document. Information, schedules, and response and remedial actions presented in this BCP do not necessarily represent those that have been or will be approved by the U.S. Army or federal and state regulatory agencies. It was necessary to make certain assumptions and interpretations to develop the schedule and cost estimates. As additional data become available, implementation programs and cost estimates could be altered. Such changes would then be reflected in future updates to the BCP.

Chapter 1 describes the objectives of the environmental restoration program, explains the purpose of the BCP, introduces the Project Team formed to review the program, and provides a brief history of the Fort.

Chapter 2 summarizes the current status of the Fort Sheridan property disposal planning process and describes the relationship of the disposal process with other environmental programs.

Chapter 3 summarizes the current status and past history of the Fort Sheridan IRP and associated environmental compliance programs, community relations activities that have occurred to date, and the environmental condition of base property.

Chapter 4 describes the basewide strategy for environmental restoration, including the strategies for dealing with each operable unit (OU) or area of concern (AOC) on base. This chapter also includes summaries of plans for managing underground storage tanks (UST), polychlorinated biphenyl (PCB) transformers, asbestos abatement, and responses under other compliance programs if they are applicable.

Chapter 5 provides master schedules of planned and anticipated activities to be performed throughout the duration of the environmental restoration program, including associated compliance activities.

Chapter 6 describes specific technical and/or administrative issues to be resolved and presents a strategy for resolving these issues.

Chapter 7 presents the primary references used in compiling the BCP.

In addition to the main text, the following appendices are included in this document:

- ▶ Appendix A - tables presenting funding requirements, as well as a summary table of projected and historical costs for the environmental restoration program
- ▶ Appendix B - technical documents and data loading summary, listings of previous environmental restoration program deliverables by program and by site
- ▶ Appendix C - summaries of Decision Documents (DDs) for which a response action or remedial action was selected
- ▶ Appendix D - summaries of each DD for each site or OU for which a no further response action planned (NFRAP) decision has been made
- ▶ Appendix E - working conceptual models for sites, zones, or OUs.
- ▶ Appendix F - other ancillary materials relevant to the BCP.

1.1 Environmental Response Objectives

The objectives of the base closure environmental restoration program at Fort Sheridan are as follows:

- ▶ Protect human health and the environment
- ▶ Strive to meet reuse goals established by the U.S. Army and community consistent with legislation relevant to the closure of Fort Sheridan
- ▶ Comply with existing statutes and regulations
- ▶ Conduct all environmental restoration activities in a manner consistent with Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA)
- ▶ Conduct Community Environmental Response Facilitation Act (CERFA) investigations
- ▶ Continue efforts to identify all potentially contaminated areas
- ▶ Establish priorities for environmental restoration and restoration-related compliance activities so that property disposal and reuse goals can be met

- ▶ Initiate selected removal actions to control, eliminate, or reduce risks to manageable levels
- ▶ Identify and map the environmental condition of installation property, with the intent of identifying areas suitable for transfer by deed
- ▶ Complete the environmental restoration process as soon as practicable for each source area, zone, or OU, in an order of priority which takes into account both environmental concerns and redevelopment plans; consider future land use when characterizing risks associated with releases of hazardous substances, pollutants, contaminants, or hazardous wastes.
- ▶ Develop, screen, and select response actions or remedial actions that reduce risks in a manner consistent with statutory requirements
- ▶ Commence response actions for (1) environmental and (2) property disposal and reuse priority areas as soon as practicable
- ▶ Advise the real estate arm of the U.S. Army BRAC Organization of property that is deemed suitable for transfer and properties that are not suitable for transfer because they are either not properly evaluated or pose an unacceptable human health or environmental risk
- ▶ Conduct long-term remedial action for groundwater and any necessary 5-year reviews for wastes left on site
- ▶ Establish interim and Long-Term Monitoring (LTM) plans for remedial actions as appropriate.

1.2 BCP Purpose, Updates, and Distribution

This BCP presents, in summary fashion, the status of Fort Sheridan's environmental restoration and compliance programs and the comprehensive strategy for environmental restoration and restoration-related compliance activities. It lays out the response action approach at the installation in support of installation closure. In addition, it defines the status of efforts to resolve technical issues so that continued progress and implementation of scheduled activities can occur. The Fort Sheridan BCP Strategy and Schedule herein is designed to streamline and expedite the necessary response actions associated with the historic district and the northern part of the post to facilitate the earliest possible disposal and reuse activities.

This BCP will be reviewed quarterly and updated annually. Updates to the BCP will be distributed to each member of the Fort Sheridan Project Team as well as to additional individuals and organizations as identified by the BCT. Table 1-1 provides an initial list of individuals to receive the updates of the BCP. The list may be expanded at a later time.

TABLE 1-1. BCP DISTRIBUTION LIST

Name	Title	Address
Allan Balliett	Chief Environmental Management, Fort McCoy	Department of Army Headquarters, Fort McCoy Attn: AFZR-DE-E Sparta, WI 54656-5000
Gary Schafer	Remedial Project Manager, U.S. Environmental Protection Agency (USEPA)	USEPA, Region V 77 W. Jackson Blvd. HSRL-6J Chicago, IL 60604
Steve Nussbaum	Environmental Protection Engineer, Illinois Environmental Protection Agency (IEPA)	IEPA Office of Community Relations 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
PROJECT TEAM MEMBERS		
Russell Fendick	U.S. Army Environmental Center (USAEC) Project Officer	USAEC Attn: SFIM-AEC-BCA Bldg. E-4480 Aberdeen Proving Ground, MD 21010-5401
Victor Bonilla	FORSCOM Headquarters	Not Available
Steve Stokke	Project Manager, Fort McCoy	Environmental Management Division Attn: AFRC-FM-DEE 2160 South J Street Fort McCoy, WI 54656-5162
Ron Gierthy	Fort Sheridan	Building 202 Philip Sheridan Reserve Center Fort Sheridan, IL 60087-5000
Chuck Grigalawski	Field Representative, IEPA	IEPA Field Division 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Chris Kallis	Environmental Protection Specialist, IEPA	IEPA Environmental Protection 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Susan Toutant	Project Manager, Louisville District	Department of Army U.S. Army Engineer District, Louisville 600 Martin Luther King Jr. Place Louisville, KY 40202
Mike Lambert	Real Estate Specialist, U.S. Army Corps of Engineers (USACE) Louisville District	Department of Army U.S. Army Engineer District, Louisville 600 Martin Luther King Jr. Place Louisville, KY 40202
Nadina Smith	Real Estate Specialist, USACE Louisville District	Department of Army U.S. Army Engineer District, Louisville 600 Martin Luther King Jr. Place Louisville, KY 40202
Shannon Townsend	U.S. Navy, Great Lakes Training Center	Engineering Field Activity-Midwest Building 1-A, Code 920 Great Lakes, IL 60088-5600

TABLE 1-1. BCP PLAN DISTRIBUTION LIST**Continued**

Name	Title	Address
Jim Show	Chemist, IEPA	IEPA Analytical Division 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Connie Sullinger	Risk Assessor, IEPA	IEPA Risk Assessment 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Ron Daughy	RCRA Issues, IEPA	IEPA RCRA Compliance 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Mike Heaton	RCRA Closures, IEPA	IEPA RCRA Closures 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Sharon Otto	Geologist, IEPA	IEPA Geology Division 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Don Sutton	Air Pollution, IEPA	IEPA Air Quality Division 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Jerry Sweitzer	Air Pollution, IEPA	IEPA Air Quality Division 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Jackie Neuber	Air Pollution, IEPA	IEPA Air Quality Division 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Ron Steward	Landfill Specialist, IEPA	IEPA Solid Waste Division 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Don Harrison	Community Relations Coordinator	IEPA Office of Community Relations 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276
Carol Barry	Legal Counsel	Legal Service 2200 Churchill Road, P. O. Box 19276 Springfield, IL 62794-9276

1.3 BCT/Project Team

The BCT is composed of three members, including Remedial Project Managers from both the USEPA, Region V and the IEPA. The BCT is led by the BRAC Environmental Coordinator (BEC).

The Project Team consists of the BCT and additional individuals whom the BCT selects to assist in the environmental restoration process at Fort Sheridan. The Project Team is led by the BEC. Project Team meetings are the means of conducting periodic program reviews and reaching consensus on decisions with the USEPA and IEPA. Table 1-2 lists the current Project Team members, and specifies individual roles and responsibilities.

TABLE 1-2. CURRENT BCT/PROJECT TEAM MEMBERS

Name	Title	Phone	Role/Responsibility
Allan Balliett	Chief Environmental Management, Fort McCoy	(608) 388-2160	BEC/BCT Member
Gary Schafer	Remedial Project Manager, USEPA	(312) 886-4071	USEPA Representative/BCT Member
Steve Nussbaum	Environmental Protection Engineer, IEPA	(217) 524-4193	IEPA Representative/BCT Member
PROJECT TEAM MEMBERS			
Russell Fendick	USAEC Project Officer	(410) 671-1630	USAEC
Victor Bonilla		(406) 752-4701	FORSCOM HQ
Steve Stokke	Project Manager, Fort McCoy	(608) 388-2160	Project Manager
Ron Gierthy	Fort Sheridan	(708) 926-3842	BRAC Transition Coordinator, Fort Sheridan
Chuck Grigalawski	Field Representative, IEPA	(708) 388-7930	IEPA
Chris Kallis	Environmental Protection Specialist, IEPA	(708) 388-7930	Water Specialist, USEPA
Susan Toutant	Project Manager, Louisville District	(502) 625-2014	Project Manager
Mike Lambert	Real Estate Specialist, USACE Louisville District	(502) 625-7373	Real Estate
Nadina Smith	Real Estate Specialist, USACE Louisville District	(502) 625-7374	Real Estate
Shannon Townsend	U.S. Navy, Great Lakes Training Center	(708) 688-4197	U.S. Navy Representative
Jim Show	Chemist, IEPA	(217) 285-5166	Chemist/Quality Assurance

TABLE 1-2. CURRENT BCT/PROJECT TEAM MEMBERS**Continued**

Name	Title	Phone	Role/Responsibility
Connie Sullinger	Risk Assessor, IEPA	(217) 782-6760	Health and Safety
Ron Daughy	RCRA Issues, IEPA	(217) 782-6760	RCRA Issues
Mike Heaton	RCRA Closures, IEPA	(217) 524-3300	RCRA Closures
Sharon Otto	Geologist, IEPA	(217) 782-6760	Geologist
Don Sutton	Air Pollution, IEPA	(271) 282-2113	Air pollution quality
Jerry Sweitzer	Air Pollution, IEPA	(271) 282-2113	Air pollution quality
Jackie Neuber	Air Pollution, IEPA	(271) 282-2113	Air pollution quality
Ron Steward	Landfill Specialist, IEPA	(217) 524-3300	Landfill Issues
Don Harrison	Community Relations Coordinator	(217) 782-5562	Community Relations
Carol Barry	Legal Counsel	(217) 524-2364	Legal Service

1.4 Installation Description and History

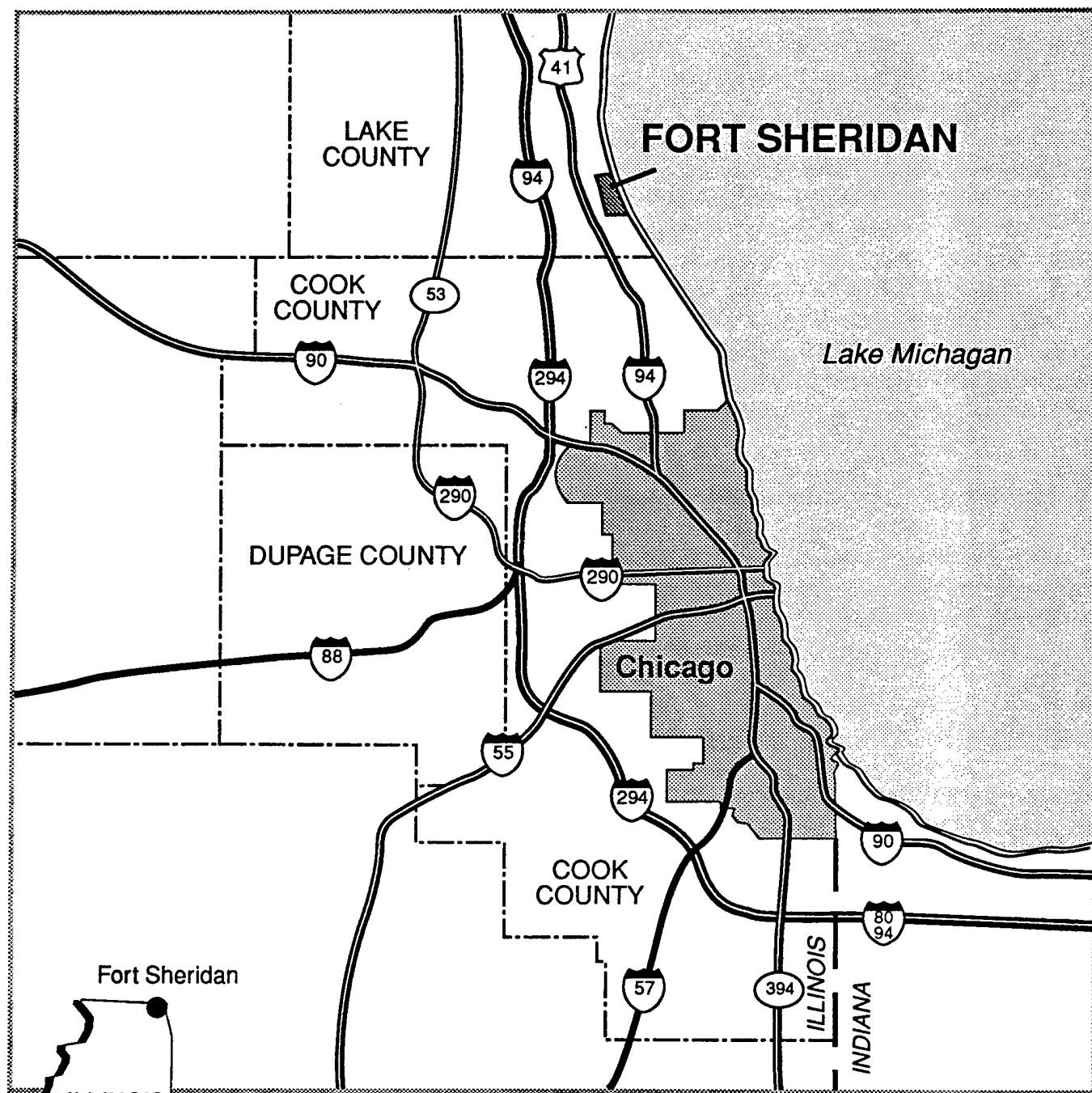
Fort Sheridan is located on approximately 695 acres in Lake County, Illinois. Fort Sheridan is surrounded on three sides by the urban-residential communities of Lake Forest (north), Highland Park (south), and Highwood (west). On the northwest, within the City of Lake Forest, the McCormick Nature Reserve is adjacent to the post boundaries. Lake Michigan is on the west of the post. The three communities have a combined population of approximately 55,000. Figure 1-1 shows the general location of the installation and Figure 1-2 shows the surrounding land use.

Fort Sheridan was acquired in October 1887 and initially staffed on 13 November 1887. The fort was formally named in 1888 with cavalry training its major mission. Construction of permanent facilities was also authorized in 1888 when 632.5 acres were acquired. In the early 1900s land transactions resulted in an additional 96.5 acres added to the installation. A total of 18.5 acres for which acquisition date is not known were also added to the installation. A history of acquisitions is provided in Table 1-3.

Historical activities and missions for Fort Sheridan are summarized in Table 1-4. The early military missions emphasized training of cavalry and infantry including the Spanish American War (1898), Mexican War (1913), and World War I. During World War I, Fort Sheridan added a major military hospital to treat the wounded. The hospital played a major role during World War II and was active at a reduced level until it was demolished in the early 1960s.

The post also played a major role in anti-aircraft and coastal (anti-naval) artillery training. It was also the administrative headquarters for 46 prisoner of war camps in Michigan, Illinois, and Wisconsin during World War II.

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General Location of
Fort Sheridan, Illinois

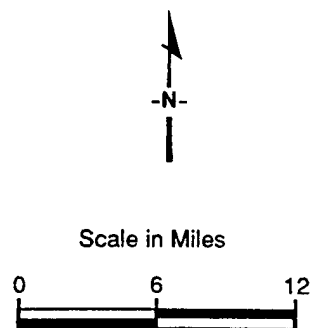
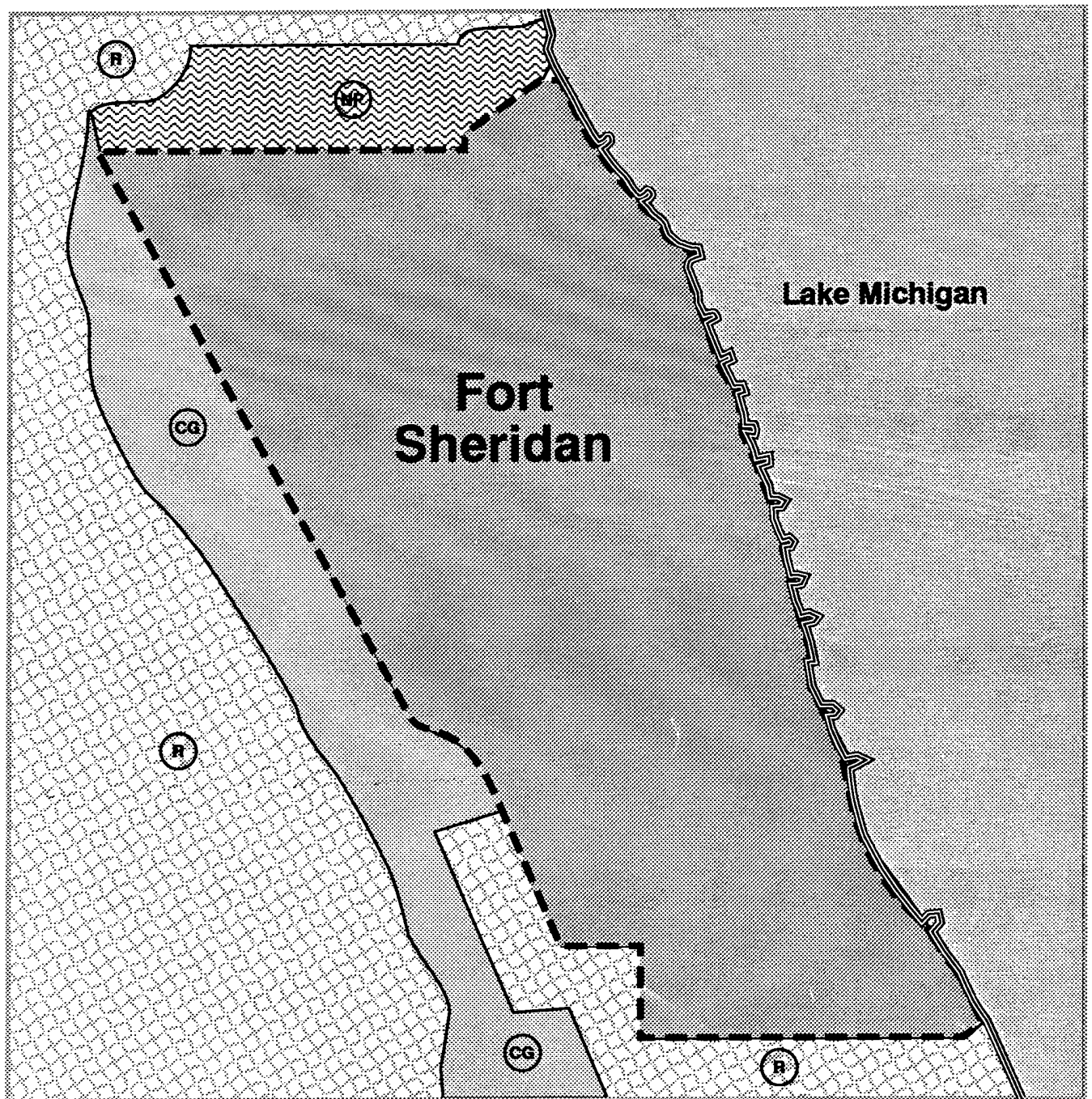






Figure 1-1

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EXPLANATION

-  Residential
-  Commercial General
-  Natural Preserve
-  Installation Boundary

Existing Land
Use Adjacent
to Fort Sheridan

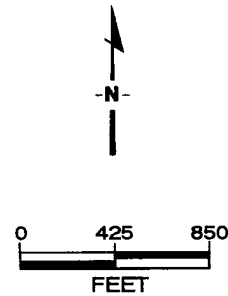


Figure 1-2

TABLE 1-3. PROPERTY ACQUISITION SUMMARY

Tract Number	Previous Land Owner	Acreage		
		Fee Land	Easement Land	Acquisition Date
102, 103	Adolphus C. & Mary P. Bartlett Charles L. and Francis K. Hutchison John J. and Sarah J. Janes	632.5 acres		6 October 1887
101	Rebecca P. and William A. McNeil	12.14 acres		26 February 1909
Unknown	Unknown	84 acres		1906, 1907, 1908
104	Otto R. Hansen	5.80 acres		Unknown
171	Michael Sweeney	12.74 acres		Unknown

TABLE 1-4. HISTORY OF INSTALLATION OPERATIONS

Period	Type of Operation	Weapon System	Hazardous Substance Activities	Map Reference (see Figure 1-3)
1887-1950	Cavalry, Infantry, Artillery Training, Hospital	Small Arms, Artillery	Landfills, POL, paints/thinners, solvents/degreasers, medical wastes, fuel/oil storage	1, 2, 3, 4, 5, 6
1950-1979	Nike Missile Defense System	Nike Missile	Landfills, POL, paints/thinners, solvents/degreasers, medical wastes, fuel/oil storage, pesticides, explosive ordnance	1, 2, 3, 4, 5, 6, 7, 8
1979-1993	Administrative Support for Army Reserve	None	POL, paints/thinners, solvents/degreasers, medical wastes, pesticides, fuel/oil storage, explosive ordnance	2, 3, 4, 5, 6, 7, 8

Key: POL = Petroleum, Oil, and Lubricants

More recently, Fort Sheridan served as headquarters of the Nike missile anti-aircraft defense systems in the midwest. All Nike systems were supplied and underwent service maintenance at Fort Sheridan from the 1950s to 1974. Since 1973, Fort Sheridan has been headquarters of the Fourth Army, U.S. Army Recruiting Command for Region V, and the activities of the 74 Army Reserve Centers in the seven state midwest region (Illinois, Iowa, Indiana, Michigan, Minnesota, Missouri, and Wisconsin). From 1973 until the fort was closed, the fort's primary mission has been administration and logistical support for the midwest region.

Approximately 190 acres of the installation has been transferred to the U.S. Navy. About 14 acres in the northwest corner of the fort and about 90 acres in the southwest have been transferred to the U.S. Army Reserve. The existing post cemetery, about 15 acres, will be retained by the U.S. Army Forces Command for operation and maintenance until such time as disposal is accomplished.

1.5 Environmental Setting

This section provides a brief description of the environmental setting for Fort Sheridan.

Physiography. Fort Sheridan is located north of Chicago, Illinois along the Lake Michigan shoreline on the Highland Park Moraine, the eastern most moraine in Southern Lake County, Illinois. It is situated within the Lake Border Morainic System of the Central Lowlands Physiographic Province of the United States. This system consists of five long, narrow, closely spaced moraines that run generally parallel to the Lake Michigan shoreline. These moraines consist of unconsolidated glacial till of Pleistocene age, deposited during the Wisconsin glacialation.

The topography at Fort Sheridan is relatively flat, with a gentle slope of 2 to 4 degrees to the east of terminating at a bluff line that runs along the lakeshore. The top of the bluff ranges from 39 to 69 feet (12 to 21 meters) above the Lake Michigan level. Elevations at Fort Sheridan range from approximately 650 feet (198 meters) above sea level at the bluff line to up to 695 feet (212 meters) above sea level at the western boundary of the installation.

Three major and two minor surface soil services have been identified on Fort Sheridan. The major series are the Morley Silt Loam, which covers the majority of the land; the Hennepin Loam, which is located in parts of the northwest, northeast, and southeast areas; and beach sand, which is located along the lakeshore. The minor soil series, which occupy small areas along the western boundary of the installation, are the Markham and Beecher Silty Clay Loams.

The Pleistocene glacial deposits at Fort Sheridan are approximately 90 feet thick. These deposits are associated with the silty, pebbly clay, olive yellow to olive brown to gray in color. Isolated pockets and lenses of sand, gravel, or silt may also be found within these deposits.

The sediments underlying Fort Sheridan consist predominantly of clay to silty clay with occurrences of thin (generally less than 3 feet in thickness) and laterally discontinuous silt, sand, or gravel lenses. The report indicates that these units were deposited by streams flowing to (or from) the general direction of Lake Michigan. Since these channel sands are stratigraphically

and topographically higher to the west, groundwater within the sands theoretically would flow from west to east, toward Lake Michigan. Channel sands occur at many different elevations indicating numerous channels may be present in the Fort area.

Due to slow recovery rates on monitoring wells, accurate static groundwater water levels could not be obtained from the Draft Final Remedial Investigation/Remedial Action/Feasibility Study. Groundwater levels have been obtained from previously installed piezometers. These data show the groundwater elevation between 610 and 670 feet with respect to mean sea level. Fort Sheridan is situated on a bluff overlooking Lake Michigan, approximately 650 feet above sea level. The local groundwater flow appears to be into the ravines and a regional groundwater flow is to Lake Michigan.

Fort Sheridan and all neighboring cities and towns obtain drinking water from Lake Michigan. The nearest town that utilizes groundwater as a municipal water supply is Lincolnshire, approximately 5 miles southwest of Fort Sheridan. Only one well at Fort Sheridan was used for purposes other than groundwater monitoring. This well, installed in the late 1960s, was used to supplement a pond at the northern end of the installation. The pump in this well is inoperable and has not been operational for many years. The exact depth of this well is unknown.

The water table in the Pleistocene glacial till may vary from 2 to 3 feet below ground surface (bgs) to 15 feet bgs. The groundwater in the glacial till does not appear to flow readily because of low permeability caused by the high clay content. If the sand lenses in the glacial till are channel sands, then ground water flow in this formation could reach the surface waters in the ravines or Lake Michigan. Based on available data, the characteristics of the groundwater hydrology of, and the sand lenses present in, the glacial till below Fort Sheridan remains unclear.

Unconsolidated deposits are about 200 feet thick on the Fort Sheridan site. It is primarily glacial till with several thin zones of sand and gravel (occasionally silty), below 100 feet in some areas (Larsen, 1973). Pebbles and boulders found are principally dolomite and shale. The Silurian dolomite is about 300 feet in thickness and forms a shallow bedrock aquifer. This aquifer is separated from the deep Cambrian-Ordovician bedrock by 100-200 feet thick layers of non-water bearing shales of the Maquoketa formation. Some downward leakage from the shallow bedrock aquifer through the Maquoketa shales has been reported.

There are no perennial streams on the facility. A small pond is located near the bluff at the northern end of the facility. This pond has a surface area of approximately one acre and is 15 feet deep at maximum pool evaluation. Constructed in 1967, the pond is fed by a groundwater well and has no watershed. The facility's storm sewer system discharges into Lake Michigan, either by direct pipeline to culverts or via the ravines. Six deep ravines traverse the surface of the property from west to east, running generally perpendicular to the shoreline. In the past, these ravines have been used as waste disposal sites identified later as landfills. Surface runoff within Fort Sheridan flows either into the nearest ravine or an inlet to the base storm sewer system. The ravines provide natural drainage pathways leading to Lake Michigan.

1.6 Hazardous Substances and Waste Management Practices

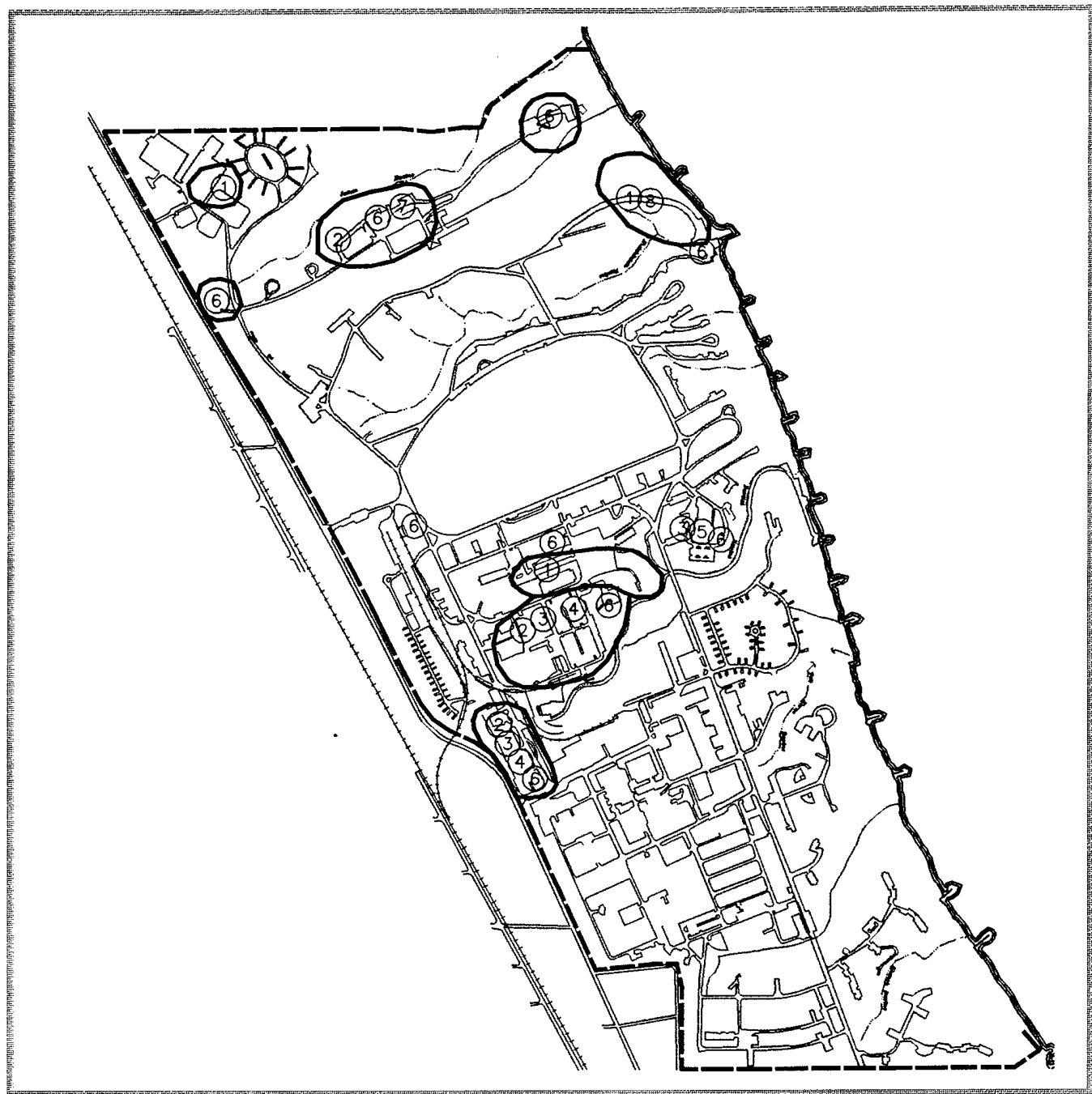
In support of those missions assigned to Fort Sheridan, past activities have involved the handling of a variety of hazardous substances and the generation of listed hazardous waste such as xylene, toluene, methylene chloride, chloroform, bis(2-ethylhexyl)phthalate, waste oil, other solvents, lubricants, paints, flammable materials, acids, medical wastes, and pesticides. Insufficient data are available to determine the total quantities of these materials used at the installation and generated as hazardous waste. Table 1-4 identifies the historical hazardous substance activities associated with the various installation missions. Figure 1-3 indicates the various locations where these activities occurred. Table 1-5 indicates current or past waste generating activities in the BRAC portion of Fort Sheridan.

Past industrial waste disposal practices at Fort Sheridan have involved landfilling and open and pit burning. These practices no longer occur. There are three inactive landfills in the BRAC portion of the installation which were used to dispose of various waste.

1.7 Off-Post Property/Tenants

Off-Post Property. Fort Sheridan has no off-post properties. In the past, the Fort Sheridan Commander had responsibility for the Joliet Training Area, however, that responsibility was transferred to Fort McCoy in June 1993. Table 1-6 and Figure 1-4 will reflect any off-post property that may be acquired by Fort Sheridan.

Tenants. Non-U.S. Army tenant organizations have included the Office of the Surgeon General, AMMED Activity (HSC). Table 1-7 indicates the non-U.S. Army tenants recently on-post.



EXPLANATION

- ① Designation of Activity Location
- Boundary of Activity Location
- - - Installation Boundary

**Location of Past
Hazardous
Substance
Activities**



0 650 1300
FEET

Figure 1-3

TABLE 1-5. HAZARDOUS WASTE GENERATING ACTIVITIES

Facility	Unit	Activity	Name of Waste Material	Generation Rate	Disposition
Building 43	General Support Shop	Cleaning, stripping, painting, repair	Methylene chloride, xylene, soap/degreaser, other cleaners, paint	\pm 100 gal/mo	Pumped, treated, and hauled away by private contractor
Building 51	Motor Pool	Vehicle maintenance	POL, solvents	Unknown	Collected in 55 gallon drums for disposal. Location not determined.
Building 135	Supply Storage	Storage, distribution, hazardous materials	Waste generated not determined	No information available	No information available
Building 172	Golf Course Storage Building	Pesticide storage	Various fertilizers and pesticides	No information available	Used on golf course
Building 216	Maintenance Shop	Vehicle body work, painting	POL, solvents, paints, thinners, degreasers	Unknown	Unknown
Building 707	Health Clinic	Medical care	Infectious waste, other medical waste	5 kilograms per day	Currently, autoclaved and disposal of at sanitary landfill. Historically, wastes were shipped to Naval Training Center Great Lakes for incineration.
Heliport/ Building 117	Heliport	Helipad, fixed wing hangar, POL storage	POL	Unknown	Unknown
Building 86	Supply Storage	Hazardous material storage	Waste generated undetermined	No information available	No information available
Building 126	Maintenance Storage	Pesticide storage	Various pesticides	No information available	Used on golf course on-post

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**There are currently no Off-Post Parcels
associated with Fort Sheridan. Future
changes will be reflected here.**

EXPLANATION

Off-Post Properties



Figure 1-4

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TABLE 1-7. ON-POST TENANT UNITS

Tenant	Building
Office of the Surgeon General, AMMED Activity (HSC)	Buildings not determined

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CHAPTER 2

► PROPERTY DISPOSAL AND REUSE PLAN ◀

This chapter discusses the current status of the disposal and reuse planning process for Fort Sheridan and the relationship between the disposal process and environmental programs at the installation. It also identifies property transfer methods being utilized or considered in the disposal plans.

2.1 Status of Disposal Planning Process

The disposal of Fort Sheridan involves three interrelated activities: the NEPA EIS process, development of a disposal plan, and development of a community reuse plan. An EIS for the closure of Fort Sheridan has been completed (USACE, 1990) with a Record of Decision (ROD) dated 19 February 1991. The EIS addressed alternative site areas for the U.S. Army Reserve Component and conceptual alternative reuses of the installation. An Environmental Assessment for the disposal and reuse of Fort Sheridan, Illinois was prepared in September 1993. A Draft FNSI is under review by the U.S. Army and a decision on the FNSI will be made by June 1994.

The Fort Sheridan Commission was formed in about 1989 with assistance from the Office of Economic Adjustment (OEA). By early 1990, the Fort Sheridan Commission had formed ten advisory panels to assist in the reuse planning process. In March 1991, the Fort Sheridan Commission approved a community reuse plan, however, additional planning concepts are still being considered and discussed. The Fort Sheridan Commission has been superseded by the Fort Sheridan Joint Planning Committee as the designated Reuse Committee. The public review process on the community reuse plan was initiated in August 1993. A final reuse plan has not yet been approved by the Reuse Committee or the three cities and the county involved. The Joint Planning Committee may apply for and receive additional OEA funds to complete the reuse planning process.

Specific disposal parcel designations are not complete. However, for planning purposes in this BCP, two tentative reuse parcels have been identified based on the historic district and the rest of the disposal parcel. These parcels are shown in Figure 2-1. Final disposal parcel designations will be determined when a final reuse plan is selected and has been coordinated and integrated with the cleanup activities. Fort Sheridan is scheduled to complete the Disposal Plan in January 1995 and close all real estate transactions in August 1995. These milestones are listed in Table F-2 in Appendix F.

2.2 Relationship to Environmental Programs

Disposal and reuse activities at Fort Sheridan are intimately linked to environmental investigations, restoration, and compliance activities for two reasons:

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EXPLANATION

- ① Historical District Residential/Commercial
- ② Golf Course & Residential
- ③ Cemetary
- ④ U.S. Navy (Excluded)
- ⑤ U.S. Army Reserve (Excluded)

--- Installation Boundary

Disposal
and
Reuse
Parcels



0 650 1300
FEET

Figure 2-1

Fort Sheridan, Illinois

- ▶ Federal property transfers to nonfederal parties are governed by CERCLA Section 120(h)(3)(B)(i).
- ▶ Residual contamination may remain on certain properties after remedial actions have been completed or put into place, thereby restricting the future use of those properties.

CERCLA Section 120(h)(3)(B)(i) requires deeds for federal transfer of previously contaminated property to contain a covenant that all remedial actions necessary to protect human health and the environment have been taken. The 1992 Community Environmental Response Facilitation Act (CERFA) amendment to CERCLA provided clarification to the phrase "has been taken." This clarification states that all remedial action has been taken if the construction and installation of an approved remedial design has been completed, and the remedy has been demonstrated to the Administrator to be operating properly and successfully. It further states that the carrying out of longterm pumping and treating, or operation and maintenance, after the remedy has been demonstrated to the Administrator to be operating properly and successfully does not preclude the transfer of the property. This deed requirement applies only to property on which a hazardous substance was stored for 1 year or more, or is known to have been disposed of or released. Thus, any required remedial and/or removal response actions must be selected and implemented for such contaminated properties before transfers to private parties can occur.

The requirement for complying with CERCLA 120(h) and the possibility of residual contamination are factored into the property disposal and reuse process at Fort Sheridan. Table 2-1 takes these two factors into consideration, presents summary information on BRAC disposal and Reuse Parcels 1 and 2, and provides an approximate timetable for transfer by deed of each parcel at Fort Sheridan.

TABLE 2-1. REUSE PARCEL DATA SUMMARY

Parcel	Acres	Priority	Description and Proposed Reuse	Known Sites	Projected Transfer Date	Transfer Mechanism	Recipient
1	230	1	Historic District; Residential/Commercial	Portions of OU 1 and OU 2	8/95	Competitive Sale; Negotiated Sale; Legislated Exchange	TBD
2	139	1	Golf Course/Northern Post Area (not in historic district); residential/active recreation; commercial	Portions of OU 1 and OU 2	8/95	Competitive Sale; Negotiated Sale; No Cost Public Conveyance	TBD

Key: TBD = To Be Determined

The Fort Sheridan strategy and schedule herein is designed to streamline and expedite the necessary response actions associated with Parcels 1 and 2 to facilitate the earliest possible disposal and reuse activities. Because of the need to delineate between areas suitable for transfer and those which are not, the Fort Sheridan BCT continues to develop an environmental-condition-of-property map for the Fort Sheridan (see text and figures in Chapter

3.4) using, in part, data from the CERFA investigation of the installation. This environmental-condition-of-property map allows the visualization of both contaminated areas and areas of no suspected contamination, and the relationship of these areas to disposal and reuse parcels. This map will be updated as contaminated areas are remediated and restored.

2.3 Property Transfer Methods

This section presents the various property transfer methods that may be implemented to dispose of the Fort Sheridan property.

2.3.1 Federal Transfer of Property

Based on a Memorandum of Understanding (MOU) dated 8 August 1991, approximately 200 acres of the southeastern portion of Fort Sheridan was transferred from the Department of the Army (DOA) to the Department of the Navy effective 1 October 1993. The final property transfer is contingent on all reimbursement funds being transferred to DOA by 30 September 1995. As of March 1994, no further federal transfers are planned. This parcel is considered an excluded property unavailable for transfer for the purposes of this BCP. This legal agreement is identified in Table 2-2.

TABLE 2-2. EXISTING LEGAL AGREEMENTS/INTERIM LEASES

Title Interim Lease/Legal Agreement	Building No./Areas	Date of Agreement	Reuse Parcel
MOU between DOA and Department of the Navy: transferred certain properties at Fort Sheridan, Illinois	± 200 acres	8 August 1991	4

2.3.2 No-Cost Public Benefit Conveyance

Historically about 35 acres of Fort Sheridan property have been conveyed to various jurisdictions for roadways, pipeline right of ways, water treatment facilities, and open space. The no cost public benefit conveyance may be used to transfer selected portions of disposal Parcel 2 as part of an open space recreational use area.

2.3.3 Negotiated Sale

A negotiated sale of the disposal parcels is not anticipated at this time.

2.3.4 Competitive Public Sale

This is an actively considered option for the transfer of the disposal parcels.

2.3.5 Widening of Public Highways [Easements]

No easements or widening of public highways are currently being considered as part of the disposal process.

2.3.6 Donated Property

The donation of property is not being considered as a transfer option at this time.

2.3.7 Interim Leases

No interim leases are being considered at this time.

2.3.8 Other Property Transfer Methods

Development of and passage of legislation to provide for an exchange of property is being considered as an option for the transfer of all or parts of disposal and reuse Parcels 1 and 2.

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CHAPTER 3

► INSTALLATION-WIDE ENVIRONMENTAL PROGRAM STATUS ◄

This chapter provides a summary of the current status of environmental restoration projects, installation-wide source discovery and assessment activities, and ongoing compliance activities at Fort Sheridan. It also summarizes the status of the cultural and natural resource programs at the installation, the status of the community involvement to date, and the environmental condition and suitability for transfer of the installation property.

3.1 Environmental Program Status

An Installation Assessment was conducted in 1981 and updated in 1987. An Enhanced Preliminary Assessment (ENPA) was prepared in 1989. A Draft Final Remedial Investigation (RI)/Risk Assessment was prepared in 1992 and a Draft CERFA Report was prepared in 1993. The Draft RI/Risk Assessment report indicates which areas requiring environmental evaluation (AREEs) pose no risk to human health or the environment.

Table 3-1 lists a total of 34 AREEs that were identified in the ENPA (1989), CERFA (1993), and Draft RI/Risk Assessment (1992) reports. Eighteen of the AREEs presented in Section 3.1 have been investigated as part of the RI/Risk Assessment process and are included in Table 3-2. Table 3-2 lists the study area and may be cross-referenced to the reuse map presented in Figure 2-1.

Currently no Installation Restoration Program (IRP) sites have been designated within the BRAC disposal and reuse parcels. However, the ENPA, CERFA, and RI/Risk Assessment reports all identify sites where additional studies and evaluations may need to be considered.

3.1.1 Restoration Sites

As of March 1994 no IRP sites have been designated for the Fort Sheridan disposal and reuse parcels. The only area currently under investigation in the disposal reuse parcels is the 50-acre area being surveyed for unexploded ordnance (UXO).

The Department of Defense (DoD) Restoration Management Information System (RMIS) database tracks the status of IRP activities initially funded under the Defense Restoration Account from the identification stage to completion of remedial actions and development of no further response action planned (NFRAP) documentation. The RMIS database lists 26 sites on Fort Sheridan potentially requiring remediation/restoration. Eleven of these sites are located in the disposal and reuse parcels (Figure 3-1 and Table 3-2). No DD or Record of Decision (ROD), under CERCLA, for which a remedial action was selected have been prepared.

TABLE 3-1. PRELIMINARY LOCATION SUMMARY

Restoration Site No.	Description	Environmental Investigation Report Results/Findings				Final Determination
		ENPA	CERFA	Draft Final RI/Risk Assessment	Findings	
	Landfill 2	x	x	x	Fill material is general refuse, cinders, coal, and UXO	UXO needs clearance
	Landfills 3/4	x	x	x	Fill material is debris, rubble, cinders, elevated levels of thallium	TBD
	Building 40	x	x		USTs removed	TBD
	Building 43	x	x	x	Combined with Bartlett Ravine for RI/Risk Assessment	TBD
	Building 51	x	x		UST removed, toluene/xylene in vehicle storage area	TBD
	Building 86		x		Apparent hazardous material spill	TBD
	Building 117	x	x		Used for aircraft maintenance and storage USTs removed	TBD
	Building 126	x	x	x	Pesticide/fertilizer storage	TBD
	Building 135	x	x		Storage area no signs of leakage	TBD
	Building 172		x		Pesticide storage	TBD
	Building 216	x	x	x	Paints and solvents stored	TBD
	Building 707	x	x		Waste disposal of sanitary landfill offsite	TBD
	Lovell Army Hospital	x	x		No information available	No further action planned
	Coal Storage Area #2		x	x	No polynuclear aromatic hydrocarbons (PNA) or metal contamination found	TBD
	Coal Storage Area #3		x	x	PNAs, thallium, and zinc present	TBD
	Vehicle Storage Area #1		x	x	Toluene/xylene compounds present	TBD
	Vehicle Storage Area #2		x	x	Toluene/xylene found in soils	TBD
	Janes Ravine		x	x	Toxic materials present - thallium	TBD
	Hutchinson Ravine		x	x	Low levels of PNAs and solvents.	TBD
	Bartlett Ravine		x	x	Presence of bis(2-ethylhexyl)phthalate and methylene chloride.	TBD

TABLE 3-1. PRELIMINARY LOCATION SUMMARY

Continued

Restoration Site No.	Description	Environmental Investigation Report Results/Findings				Final Determination
		ENPA	CERFA	Draft Final RI/Risk Assessment	Findings	
	Airport Drain		×	×	Low lead levels.	TBD
	Scott Loop Drain		×	×	Low level toxics benzo(a)pyrene.	TBD
	Drinking Water Treatment Facility Building 29	×			Water facility went offline in February 1994. Cleanup status needs review.	TBD
OU 1	UST OU1 Building 2, 1 UST		×		Removed	Waiting for final closure approval; no further action planned
	UST OU1 Building 117, 2 USTs		×		Removed	Waiting for final closure approval; no further action planned
	UST OU1 Building 205, 1 UST		×		Removed	Waiting for final closure approval; no further action planned
OU2-1	UST OU2 Building 40, 4 USTs		×		Removed	TBD
	UST OU2 Building 51, 1 UST		×		Removed	TBD
	UST OU2 Building 60, 1 UST		×		Removed	TBD
	UST OU2 Building 115, 1 UST		×	×		TBD
Radon post-wide	Radon Survey	×	×		One unoccupied building with elevated levels of radon	TBD
Asbestos post-wide	Asbestos Surveys	×	×	×	Damaged asbestos in some buildings	Damaged asbestos will be removed. Presence of asbestos will be noted in ownership transfer documents.
PCB Transformers post-wide	PCB Transformers	×	×	×	Nine PCB containing transformers, one was found to be leaking and was immediately removed.	All PCB transformers may have been removed, but this needs to be determined

Key: TBD = To Be Determined
 PCB = Polychlorinated Biphenyls

TABLE 3-2. ENVIRONMENTAL RESTORATION SITE/STUDY AREA SUMMARY

Study Area/Parcel	Site No.	RMIS Site No.	Site Class	Description	Material Disposed Of	Date of Operation	Status	Risk to Human Health and the Environment	Regulatory Mechanism	NFRAP
Landfill 2, Parcel 2		FTSH-02	TBD	Landfill	Domestic/industrial waste, UXO	1950s-early to mid 1970s	RI/Risk Assessment	HI: 8.0E-03 CRL: 12E-05	CERCLA CWA	
Landfills 3/4, Parcel 1		FTSH-03/04	TBD	Landfill	Domestic/industrial waste	Mid 1940s-late 1960s	RI/Risk Assessment	HI: 3.8E+01 CRL: 1.0E-05	CERCLA CWA	
Building 40, Parcel 1			TBD	Heating Plant	None identified	Early 1960s-present	ENPA	TBD	CAA RCRA-I	
Building 43, Parcel 1		FTSH-13	TBD	Support Shop	Methylene chloride, solvents, degreaser, paint	TBD	ENPA, RI/Risk Assessment	Combined with Bartlett Ravine	CERCLA RCRA	
Building 51, Parcel 1		TBD	TBD	Motor Pool	POL, solvents	TBD	ENPA	TBD	CERCLA	
Building 86, Parcel 1		TBD	TBD	Warehouse	TBD	TBD	CERFA	TBD	CERCLA	
Building 117, Parcel 2		FTSH-16	TBD	Maintenance Hangar and Storage	POL, undetermined		ENPA	TBD	RCRA-I	
Building 126, Parcel 2		TBD	TBD	Golf Course Office/Maintenance	Pesticides/fertilizer	Unknown	ENPA, RI/Risk Assessment	HI: 3.9E-01 CRL: 2.1E-06	CERCLA TSCA	
Building 135, Parcel 1		TBD	TBD	Supply Storage	No waste generated	TBD	ENPA	TBD	CERCLA	
Building 172, Parcel 2		FTSH-19	TBD	Golf Course Storage	Pesticides, fertilizers	TBD	ENPA	TBD	CERCLA	
Building 216, Parcel 1		TBD	TBD	Maintenance Shop	POL, solvents, degreasers, paint thinners,	TBD	ENPA, RI/Risk Assessment	HI: 1.5E+01 CRL: 6.6E-05	CERCLA RCRA	

TABLE 3-2. ENVIRONMENTAL RESTORATION SITE/STUDY AREA SUMMARY

Continued

Study Area/Parcel	Site No.	RMIS Site No.	Site Class	Description	Material Disposed Of	Date of Operation	Status	Risk to Human Health and the Environment	Regulatory Mechanism	NFRAP
Building 707, Parcel 1		TBD	TBD	Health Clinic	Medical waste	TBD	ENPA	TBD		
Army Hospital, Parcel 1		FTSH-26	TBD	Medical Facilities	Medical waste	1917-mid 1960s	Demolished	--	--	
Coal Storage Area #2, Parcel 1		TBD	TBD	Surface Coal Storage	Coal leachate and residuals	Unknown	RI/Risk Assessment	HI: 5.8E+00 CRL: 1.0E-05	CERCLA	
Coal Storage Area #3, Parcel 1		TBD	TBD	Surface Coal Storage	Coal leachate and residuals	Unknown	RI/Risk Assessment	HI: 3.8E+01 CRL: 3.0E-04	CERCLA	
Vehicle Storage Area #1, Parcel 1		TBD	TBD	Vehicle Storage	Waste oil fuels	Unknown-present	RI/Risk Assessment	HI: 5.8E+00 CRL: 1.0E-05	CERCLA	
Vehicle Storage Area #2, Parcel 1		TBD	TBD	Vehicle Storage	Waste oil fuels	Unknown-present	RI/Risk Assessment	HI: 5.9+00 CRL: 1.0E-05	CERCLA	
Janes Ravine, Parcel 2		TBD	TBD	Ravine	TBD	--	RI/Risk Assessment	HI: 3.5E+00 CRL: 2.1E-05	CWA	
Hutchinson Ravine, Parcel 1		TBD	TBD	Ravine	TBD	--	RI/Risk Assessment	HI: 2.5E-01 CRL: 3.6E-07	CWA	
Bartlett Ravine, Parcel 1		TBD	TBD	Ravine	TBD	--	RI/Risk Assessment	HI: 1.7E-01 CRL: 7.8E-04	CWA	
Airport Drain, Parcel 2		TBD	TBD	Drain	Non-specific	--	RI/Risk Assessment	HI: 1.8E-02 CRL: No Est.	CWA	
Scott Loop Drain, Parcel 1		TBD	TBD	Drain	Non-specific	--	RI/Risk Assessment	HI: 1.2 E-01 CRL: 2.1E-05	CWA	
Water Treatment Facility, Bldg. 29, Parcel 1		FTSH-25	TBD	Water Treatment Facility	TBD	1890-1994	TBD	TBD	CERCLA, CWA	

TABLE 3-2. ENVIRONMENTAL RESTORATION SITE/STUDY AREA SUMMARY

Continued										
Study Area/Parcel	Site No.	RMS Site No.	Site Class	Description	Material Disposed Of	Date of Operation	Status	Risk to Human Health and the Environment	Regulatory Mechanism	NFRAP
UST OU1, Parcels 1 and 2	OU1-1	TBD	OU	Building 2, 1 UST	Tank #B7-A1	Unknown	Removed/closed	--	RCRA-I	x
	OU1-2	TBD	OU	Building 117, 2 USTs	2 Tanks #D3-A1, C3-A1	Unknown	Removed/closed	--	RCRA-I	x
	OU1-3	TBD	OU	Building 205, 1 UST	Tank #E6-A1 + 330 cubic yards contaminated soil	Unknown	Removed/closed	--	RCRA-I	x
UST OU2, Parcels 1 and 2	OU2-1	TBD	OU	Building 40, 4 USTs	Tank #D8-B1, D8-C1, D8-C2, D8-B2	Unknown	Removed	--		
	OU2-2	TBD	OU	Building 51, 1 UST	Tank #E7-81	Unknown	Removed	--		
	OU2-3	TBD	OU	Building 60, 1 UST	Tank #D7-A1	Unknown	Removed	--		
	OU2-4	TBD	OU	Building 115, 1 UST	Tank #E9-B1	Unknown	Removed RI/Risk Assessment	HI: 8.9E-01 CRL: 4.4E-06	RCRA-I	
Post-wide Radon, Parcels 1 and 2	--	TBD	TBD	Building radon survey post-wide	--	Unknown	Survey complete, one building with elevated radon level, PA, CERFA	TBD	Army radon reduction program	

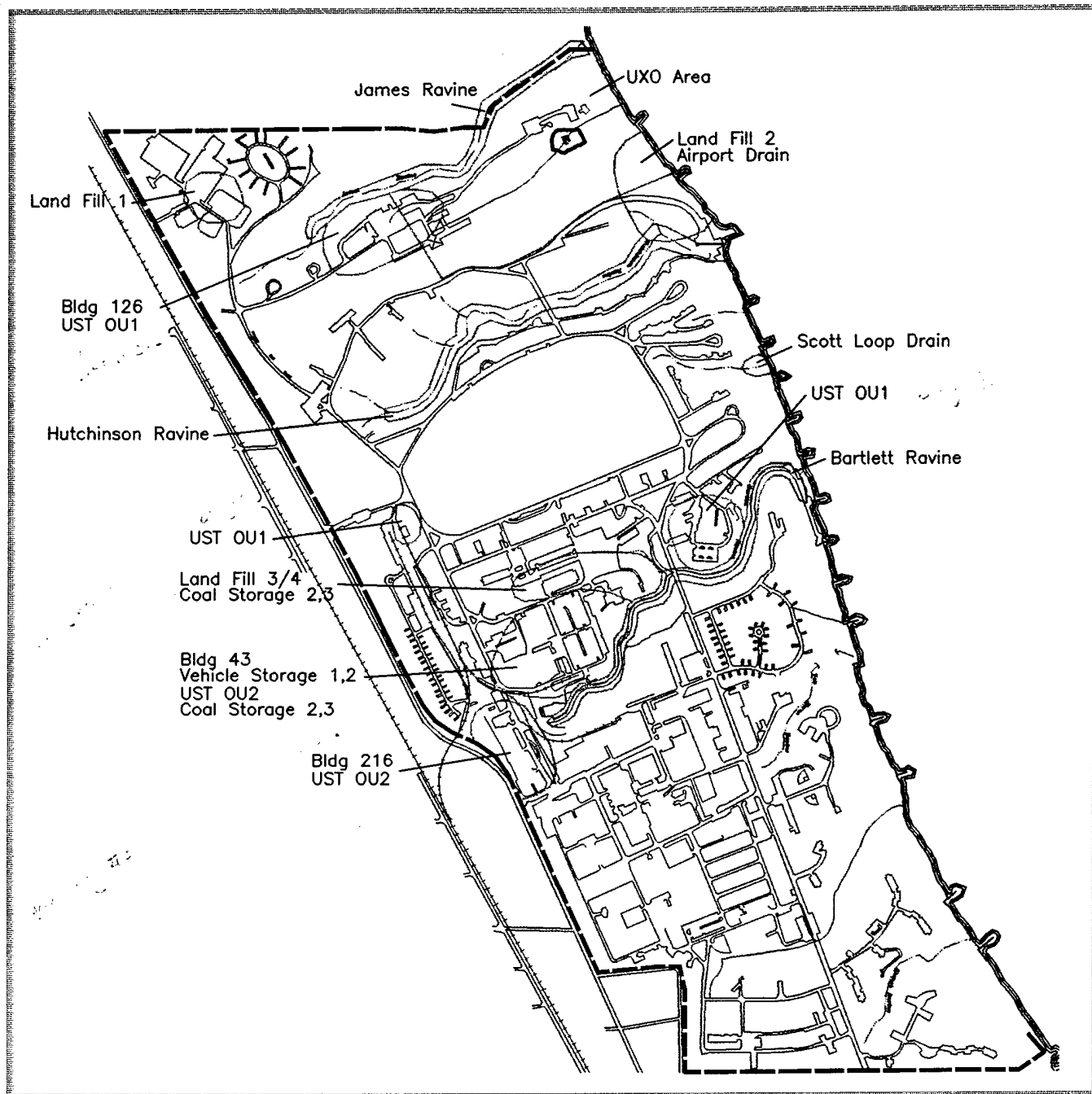
TABLE 3-2. ENVIRONMENTAL RESTORATION SITE/STUDY AREA SUMMARY

Continued

Study Area/Parcel	Site No.	RMIS Site No.	Site Class	Description	Material Disposed Of	Date of Operation	Status	Risk to Human Health and the Environment	Regulatory Mechanism	NFRAP
Post-wide Asbestos, Parcels 1 and 2	--	FTSH-21	TBD	Building surveys	Asbestos	Unknown	Survey complete damaged asbestos to be removed. ENPA, RI/Risk Assessment, CERFA	TBD	CERCLA, TSCA, CAA	
Post-wide PCB Transformer, Parcels 1 and 2	--	FTSH-20	TBD	Transformer Survey	PCB	Unknown	Survey complete, ENPA, RI/Risk Assessment	TBD	CERCLA TSCA	

Key: TBD = To Be Determined
 HI = Hazard Index
 CRL = Cancer Risk Level
 UXO = Unexploded Ordnance
 CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
 RCRA = Resource Conservation and Recovery Act
 ENPA = Enhanced PA
 CWA = Clean Water Act
 RI = Remedial Investigation
 OU = Operable Unit

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EXPLANATION

- Multiple Site or Area OUs
- Installation Boundary

**Sites, Zones,
and OUs
Currently Under
Investigation**



0 650 1300
FEET

Figure 3-1

As part of the BCP process, the other sites in the RMIS database will be more clearly identified to determine the status of the risk assessment and feasibility studies, and the remediation status of the USTs on the list. The BCT will integrate the information from the RI/Risk Assessment and the CERFA Report and the results of the UST removal process into the RMIS database. This will allow the BCT to monitor the success of BCP implementation. No early action remediation activities have been implemented by the BCT as of March 1994. Table 3-3 is included in the BCP for use if restoration early actions are identified by the BCT.

TABLE 3-3. ENVIRONMENTAL RESTORATION EARLY ACTION STATUS

IRP Site No.	Action	Purpose	Status
	No early action activities have been implemented.		

3.1.2 Installation-wide Source Discovery and Assessment Status

The ENPA (1989) identified 16 AREEs. The RI/Risk Assessment conducted in 1992 identified 18 AREEs within the Fort Sheridan disposal and reuse parcels. Eight of these AREEs overlapped in both the ENPA and the RI/Risk Assessment. In 1993 the CERFA Report summarized these evaluations and identified eight additional AREEs for a total of 34 AREEs. The sites located within the disposal and reuse parcels are identified in Table 3-1.

In addition to the specific areas requiring evaluation, the ENPA indicated that asbestos, PCBs, pesticides, radioactive materials, radon, and USTs were concerns that should be addressed. The following is a discussion of the AREEs within the disposal and reuse parcels.

Landfill 2. Landfill 2 is located immediately adjacent to Lake Michigan. The landfill was reportedly used prior to World War I. Materials discovered during excavations include general refuse, coal, and cinders. The area was also used as a small-arms firing range from World War I until the 1950s for disposal of ammunition by open detonation. An UXO survey identified 517 metallic contacts at Landfill 2 and nearly all were excavated. Small artillery shell casings were found along the beach and collected. No live ordnance was encountered.

Beryllium was found to exceed corrective action levels in soils. Semi-volatile and volatile organic compounds were present in soils above regulated levels. Research and Development Explosive (RDX) and methylene chloride were detected in the groundwater.

Landfills 3/4. Landfill 3 is part of the former north branch of Bartlett Ravine. The landfill was used in the mid-1960s. The fill material is reportedly building debris and rubble, and cinders from the heating plant. Some open burning reportedly took place at the site. Thallium was found in soils at elevated levels. Landfill 4, located immediately west of Landfill 3, constitutes the remainder of the former north branch of Bartlett Ravine. The landfill was used in the mid-1960s. The fill material is reportedly building debris and rubble. The area is now covered with asphalt and used for vehicle parking.

Building 40. The heating plant, located north of Bartlett Ravine, utilizes three natural gas-fired boilers to provide heat to buildings located at the Fort. Fuel oil was used as a backup fuel supply.

Building 43. Building 43 was a general support shop. Activities that were conducted at this location include furniture cleaning and stripping, typewriter repair, carpentry, and small painting operations. Numerous releases had reportedly occurred at this building. High concentrations of semi-volatile and volatile organic compounds were detected in the water and sediment samples collected during the RI.

Building 51. Building 51 has been the post motor pool since the 1950s and was used for maintenance of post vehicles. Waste oil, solvents, and related fluids were collected in 55-gallon drums. No significant spills were reported.

Building 86. Building 86 is a warehouse used to store a variety of industrial chemicals. Installation spill reports reviewed during the CERFA report preparation indicated that releases of hazardous substances have occurred at Building 86.

Building 117. This building was formerly a hangar where low level aircraft maintenance was conducted. At the time of the ENPA, the building was used for storage by the Directorate of Logistics (DOL). The drains in the building were suspected to be connected to the Janes Ravine.

Building 126. Pesticides and fertilizers were stored and mixed in Building 126. Pesticides and volatile organic compounds were found at concentrations below regulated levels.

Building 135. Building 135 was used for supply storage of materials for DOL Maintenance Division. Hazardous materials stored at this location included solvents, paints, trichloroethylene, and adhesives. No signs of leakage were observed.

Building 172. Pesticides and fertilizers were stored in drums in Building 172.

Building 216. Building 216 housed a body shop where vehicle body work and painting were performed. A paint spray booth where Chemical Agent Resistant Coating paint is used is located in the building. Materials such as paints and solvents were stored at this location. Soil samples were collected and analyzed during the RI. Low levels of metals were detected and did not exceed regulatory levels.

Building 707. The health clinic was constructed in 1967. Prior to the 1970s, infectious waste was hauled off-site to be incinerated. At the time of the ENPA in 1989, the waste was autoclaved and disposed of in a regional sanitary landfill.

Lovell Army Hospital. The hospital, located on the site of the current golf course, operated until 1920. It was demolished in the 1960s and the rubble was disposed of in Landfills 3 and 4. It is not known if any hazardous materials were used at the hospital.

Coal Storage Area 2 (CSA2). CSA2 is located east of Building 39, extends past Building 40, and occupies ½ acre of land. The area was used for open-air storage of coal. Soil samples were collected and analyzed for semi-volatile organic compounds and metals. No PNAs or metals were detected in the samples. The land currently contains an asphalt parking lot, a grass area, and a heating plant (Building 40).

Coal Storage Area 3 (CSA3). CSA3 is located west of the Bartlett Ravine and occupies a long narrow strip. The area was used for open-air storage of coal. Soil samples were collected and analyzed for semi-volatile organic compounds and metals. PNAs were detected at levels exceeding leaking UST cleanup objectives. Thallium and zinc were also present. The land currently contains the Fort's swimming pool and covers a grass area.

Vehicle Storage Area 1. VS1 is located in an area bounded by Buildings 51, 55, 58, and 112 and consists of a paved area. The area was used in conjunction with Building 51 as the Fort's Motor Pool. Soil samples were collected and analyzed for semi-volatile and volatile organic compounds. Toluene and xylene were detected in soils. Their source was attributed to motor and/or heating fuel leaks and spills.

Vehicle Storage Area 2. VS2 is located between Buildings 42 and 62. Soil samples were collected and analyzed for semivolatile and volatile organic compounds. Toluene and benzene compounds were present in the soils.

Janes Ravine. The northern most ravine at Fort Sheridan is referred to as Janes Ravine. This ravine is primarily fed by surface water runoff throughout its extent. However, stormwater is discharged into the ravine from neighboring Highwood, Illinois and the reserve portion of the Fort. The stormwater system servicing the reserve area also drains areas associated with Landfill 1 and the yard area at Building 902. The reserve drainage system was examined separately and then with respect to the entire ravine system. A second potential source of drainage to Janes Ravine was determined to be a small ditch near Building 126.

Hutchinson Ravine. Hutchinson Ravine passes through the Fort in an area used for housing and a golf course. The drainage system consists primarily of an intermittent stream fed by surface runoff. The only stormwater drainage originates at the western edge of the ravine from Highwood and includes small systems associated with each housing unit.

Bartlett Ravine. Bartlett Ravine is a large drainage system influenced by various activities at the Fort. A road has been constructed through the ravine leading to a beach. Along both sides of the road are channelized ditches underlain by concrete. A storm sewer lies under the road

surface. Numerous storm water systems ultimately feed into this ravine from areas engaged in various activities. Three of these systems and the main ravine channel were evaluated during the RI/Risk Assessment program.

Airport Drain. The airport drain is a small drainage system over Landfill 2 that originates near the small airport and flows eastward toward Lake Michigan.

Scott Loop Drain. This drain is a small ravine that leads into Lake Michigan and passes through the Scott Loop area of the historic district. It drains a large section of the golf course, the former hospital site, and a residential area.

Building 29. This building was used as the drinking water treatment facility for the post. It ceased operation in February 1994. Some storage of water treatment chemicals occurred at this facility.

UST OU 1. USTs in OU 1 were removed during June-July 1993. The final closure report is currently being reviewed by the IEPA. Buildings involved are Building 2, Building 117, and Building 205.

UST OU 2. USTs in OU 2 were removed in the fall of 1993 and the closure report is in progress. Buildings involved are Building 40, Building 51, Building 60 and Building 115.

Radon. Installation-wide radon surveys have been conducted and some buildings with apparent high readings have been retested. One building was found to have levels in excess of 4 pCi/L.

Asbestos. Installation-wide surveys have been conducted. Some buildings do not have asbestos documentation. Damaged asbestos has been removed. The current asbestos abatement program is continuing with a recent (March 1994) contract for asbestos lining abatement.

Polychlorinated Biphenyls (PCBs). An installation-wide survey was conducted and a leaking PCB transformer was removed immediately. Eight other PCB transformers which were in good condition were left in place for later removal.

3.2 Compliance Program Status

Compliance activities at Fort Sheridan are being conducted in coordination with environmental restoration activities under the IRP. Compliance activities address USTs, aboveground tanks (ASTs), oil water separators, hazardous materials management, asbestos, radon, PCBs, water discharges, Nuclear Regulatory Commission (NRC) licensing, radiological materials handling, mixed waste management, and pollution prevention.

Compliance actions at Fort Sheridan can be divided into two separate categories: current mission- and operational-related compliance projects and closure-related compliance projects. Mission- and operational-related projects are those which have been or would be conducted for the normal operation of the installation and are unrelated to activities necessitated by installation closure under BRAC. Conversely, closure-related compliance projects are those conducted

specifically as a result of environmental compliance and restoration activities related to BRAC closure and property disposal. There are currently no mission/operational compliance projects active at Fort Sheridan. Table 3-4 is included for reference only. The post is closed and there are no mission/operational-related compliance projects. The status of closure-related compliance projects at Fort Sheridan is shown in Table 3-5. The status of compliance-related early remedial actions is shown in Table 3-6.

TABLE 3-4. MISSION/OPERATIONAL-RELATED COMPLIANCE PROJECTS

Project	Status	Regulatory Program
	The post has been closed. There are no mission/ operational compliance projects currently active or ongoing.	

TABLE 3-5. CLOSURE-RELATED COMPLIANCE PROJECTS

Project	Status	Regulatory Program
UST Removal	Complete	RCRA I, CWA
UST Soil Remediation	Ongoing	RCRA I, CWA
Damaged Asbestos Removal	Ongoing	DOA Policy "Lead-Based Paint and Asbestos in U.S. Army properties affected by BRAC".
Asbestos Survey Completion	Future	OSHA, CAA
PCB Removal/Cleanup	Survey completed/contaminated transformer removed	TSCA
UXO Survey	Survey complete. Recommendation for 100% search and removal	NA

Key: NA = Not Applicable

TABLE 3-6. COMPLIANCE EARLY ACTION STATUS

Site	UST No.	Action	Purpose	Status
OU 1-1	B7-A1	Remove tank	Prevent leakage	Awaiting acceptance of closure report
OU 1-2	D3-A1	Remove tank	Prevent leakage	Awaiting acceptance of closure report
OU 1-2	C3-A1	Remove tank	Prevent leakage	Awaiting acceptance of closure report
OU 1-3	E6-A-1	Remove tank and 30 yards of contaminated soil	Stop leakage cleanup soil	Awaiting acceptance of closure report
OU 2-1	D8-B1	Remove tank	Prevent leakage	Tank removed waiting for closure report
OU 2-1	D8-B2	Remove tank	Prevent leakage	Tank removed waiting for closure report
OU 2-1	D8-C1	Remove tank	Prevent leakage	Tank removed waiting for closure report

TABLE 3-6. COMPLIANCE EARLY ACTION STATUS**Continued**

Site	UST No.	Action	Purpose	Status
OU 2-1	D8-C2	Remove tank	Prevent leakage	Tank removed waiting for closure report
OU 2-2	E7-A1	Remove tank	Prevent leakage	Tank removed waiting for closure report
OU 2-3	D7-A1	Remove tank	Prevent leakage	Tank removed waiting for closure report
OU 2-4	E9-D1	Remove tank	Prevent leakage	Tank removed waiting for closure report
Landfill 2	--	UXO Survey	Determine if UXO present	Report recommends clearances

3.2.1 Storage Tanks

The USEPA has delegated the management of the UST program to the state of Illinois. The state has primary enforcement responsibility and USEPA's approval effectively suspends the applicability of certain federal regulations in favor of the state program, thereby eliminating duplicative requirements. Therefore, UST closure and investigation activities at Fort Sheridan are being conducted under the Illinois UST program.

All USTs have been removed that were located in the BRAC property. USTs and ASTs have historically been used for the storage of petroleum products and/or wastes at Fort Sheridan.

A total of 16 USTs were identified on the disposal and reuse parcels at Fort Sheridan. Four of the USTs on the disposal and reuse parcels were removed as part of the OU1 response action. Because the Fort Sheridan UST closure and investigation activities are being conducted under IEPA jurisdiction, closure for OU1 will be final following the approval of the closure reports by IEPA. Seven USTs have been removed as part of the OU2 activities and final closure is underway. Two additional USTs associated with Buildings 29 and 31 were apparently removed in the past.

The OU1 and OU2 UST sites in the disposal and reuse parcels are included as fuel and oil storage locations in Figure 3-1. Table 3-7 provides an inventory of USTs in the disposal and reuse parcels. As part of the UST removal activities on Fort Sheridan, contaminated soils are being disposed in permitted landfills or remediated in place using thermal adsorption. As of March 1994, no groundwater contamination has been observed in relation to any leaking UST.

AST compliance programs at Fort Sheridan are conducted under Army Regulation (AR) 200-1 and the federal requirements including 40 CFR Parts 110, 112, and 116 and 415 Illinois Administrative Code (IAC) Sections 25/3.

Twenty-eight ASTs are currently located in the Fort Sheridan disposal and reuse parcels. The tanks store diesel and fuel oil. Ongoing environmental restoration activities at Fort Sheridan include installation of secondary containment at all AST locations. An AST inventory for the disposal and reuse parcels is provided in Table 3-8.

TABLE 3-7. UNDERGROUND STORAGE TANK INVENTORY

Tank No.	Reuse Parcel	Location	Year Installed	Capacity (Gallons)	Substance Stored	Status	Comments	Future Actions
D8-B1	1	Bldg. 40	Unknown	30,000	#2 Fuel Oil	Removed		Final Closure
D8-B2	1	Bldg. 40	Unknown	30,000	#2 Fuel Oil	Removed		Final Closure
D8-C1	1	Bldg. 40	Unknown	30,000	#2 Fuel Oil	Removed		Final Closure
D8-C2	1	Bldg. 40	Unknown	30,000	#2 Fuel Oil	Removed		Final Closure
E7-A1	1	Bldg. 51	Unknown	5,000	#2 Fuel Oil	Removed		Final Closure
D7-A1	1	Bldg. 60	Unknown	10,000	Diesel	Removed		Final Closure
E9-B1	1	Bldg. 115	Unknown	10,000	Diesel	Removed		Final Closure
D3-A1	2	Bldg. 117	Unknown	10,000	#2 Fuel Oil	Removed		Final Closure
C3-A1	2	Bldg. 117	Unknown	1,000	JP4	Removed		Final Closure
C3-A2	2	Bldg. 117	Unknown	1,000	JP4	Removed		Final Closure
C3-A3	2	Bldg. 117	Unknown	1,000	JP4	Removed		Final Closure
C3-A4	2	Bldg. 117	Unknown	1,000	JP4	Removed		Final Closure
E6-A1	2	Bldg. 205	Unknown	2,000	JP4	Removed		Final Closure
B7-A1	1	Bldg. 2	Unknown	10,000	Diesel	Removed		Final Closure
B7-A1	1	Bldg. 29	Unknown	275	#1 Fuel Oil	Removed		--
B7-A1	1	Bldg. 31	Unknown	225	#2 Fuel Oil	Removed		--

TABLE 3-8. ABOVEGROUND STORAGE TANK INVENTORY

Location	Size (gallons)/Contents	Status
Parcel 1 78-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 78-2	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 29-1	275/Diesel	Secondary Containment Construction
Parcel 1 29-2	1,000/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 121-1	550/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 40-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 40-2	30,000/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 40-3	30,000/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 44-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 44-2	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 69-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 112-1	550/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 126-1	250/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 126-2	250/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 126-3	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 55-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 60-1	150/Diesel	Secondary Containment Construction
Parcel 1 61-1	550/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 718-1	550/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 72-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 72-2	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 1 726-1	550/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 152-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 152-2	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 153-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 901-1	275/#2 Fuel Oil	Secondary Containment Construction
Parcel 2 912-1	550/#2 Fuel Oil	Secondary Containment Construction
Parcel 173-1	275/Gasoline	Secondary Containment Construction

3.2.2 Hazardous Materials/Waste Management

Hazardous waste compliance programs at Fort Sheridan are conducted under AR 200-1, and the federal requirements found in 40 CFR 260 through 269, 40 CFR 117. 49 CFR 171 et seq., Department of Transportation (DOT) regulations, and 35 IAC Sections 700-738 et. seq.

No stand-alone hazardous waste management plan is in place at Fort Sheridan. The directions for managing hazardous waste and non-hazardous waste are contained in separate standard operating procedures and guidance documents. Elements of hazardous waste management are also included in documents such as the spill prevention, control and countermeasure (SPCC) plan and the Storm Water Pollution Prevention Plan. Management of hazardous waste under these various guidance programs provides the framework for compliance with federal, state, and U.S. Army regulations. While some locations are known to have accumulated waste oils and solvents in drums for later disposal, no specific designated satellite accumulation points or RCRA permitted treatment, storage, and disposal facilities are known to have been present on Fort Sheridan including the disposal and reuse parcels.

3.2.3 Solid Waste Management

Solid waste management compliance programs at Fort Sheridan are conducted under AR 200-1 and 420-47, and the federal requirements found in 40 CFR 240-246 and 40 CFR 257-258, DOT regulations and the Illinois Solid Waste Management Act.

Since the 1980s, solid waste generated at Fort Sheridan was hauled to regional sanitary landfills by private haulers. Prior to the inactivation of on-post landfills, most solid wastes were disposed of on-post. All on-post landfills are inactive (see Section 1.0). An area of about 50 acres including Landfill 2 and adjacent areas have been surveyed and found to contain significant quantities of UXO.

3.2.4 Polychlorinated Biphenyls (PCBs)

PCB management compliance programs at Fort Sheridan are conducted under AR 200-1 and the federal requirements found in 40 CFR 761, DOT regulations, and Illinois PCB regulations.

No PCB materials are stored at Fort Sheridan. A post-wide survey of transformers in 1992 identified 9 transformers containing PCBs in the disposal and reuse parcels. One leaking PCB transformer was removed. The other eight PCB transformers were in good condition and may also have been removed but the status of those transformers has not been verified. The status of these transformers will be determined by the BCT and appropriate action implemented to comply with regulatory requirements.

3.2.5 Asbestos

Asbestos-containing material (ACM) is regulated by USEPA, the Occupational Safety and Health Administration (OSHA), and the State of Illinois. Asbestos at Fort Sheridan is being managed

in compliance with the DOA guidance "Lead-Based Paint and Asbestos in U.S. Army Properties Affected by Base Realignment and Closure."

Fort Sheridan has conducted a series of post-wide asbestos surveys. However, some buildings were not well documented and will require supplemental surveys. A detailed review of the documentation will be done as part of the BRAC cleanup process to identify those buildings within the disposal and reuse parcels requiring additional documentation.

During the asbestos survey effort, 24 buildings on the BRAC property were identified as having damaged asbestos materials requiring remediation. ACM has been removed from all 24 buildings. Asbestos abatement activities are continuing within the disposal and reuse parcels.

3.2.6 Radon

The radon reduction program at Fort Sheridan is conducted under AR 200-1, Chapter 11, U.S. Army Radon Reduction Program.

Fort Sheridan conducted a post-wide radon survey and assessment in the 1990s. Radon levels in four buildings located in the disposal and reuse parcels exceeded 4 pCi/L during the initial 90-day testing. These buildings were retested. Only one building (Building 28) was found to have high levels (8.0 pCi/L) during the retest. Because this building is currently unoccupied, no remedial actions have occurred as of March 1994.

3.2.7 RCRA Facilities (SWMUs)

There are no RCRA facilities in the disposal and reuse parcels at Fort Sheridan. Therefore, no solid waste management units (SWMUs) have been designated within the disposal and reuse parcels.

3.2.8 NPDES Permits

Point source wastewater discharges generated at Fort Sheridan are regulated under the Federal Water Pollution Control Act, Clean Water Act, and the NPDES Permit Program (40 CFR Parts 122, 125, and 136), National Pretreatment Standards (40 CFR Part 403), Illinois Compiled Statutes Chapter 415, Illinois Water Pollution Discharge Act, 35 IAC Subtitle/Illinois Water Pollution Control Rules, and AR 200-1, Chapters 3 and 8.

A NPDES permit was granted to Fort Sheridan for the discharge of effluent from a sewage treatment plant (STP) into Lake Michigan. The STP ceased operations in 1974 and the NPDES permit was not renewed. Fort Sheridan's sanitary sewer system is currently connected to the North Shore Sanitary Sewer District system.

3.2.9 Oil/Water Separators

Oil/water separators at Fort Sheridan are managed under the installation's SPCC plan, in accordance with applicable federal regulations including Section 313(a) of the Clean Water Act

and regulations 40 CFR Parts 110, 112, and 122, 35 IAC Subtitle C, ISC Chapter 415, North Shore Sanitary Sewer District requirements, DoD directives, and AR 200-1.

No oil/water separators are presently in use in the disposal and reuse parcels. An oil/water separator installed in Building 51 during the 1980-1982 timeframe has not been used since 1989.

3.2.10 NRC Licensing

Fort Sheridan has never been issued an installation-specific NRC license. The use of depleted uranium in dummy munitions was addressed by an U.S. Army-wide NRC permit for munitions training. A survey of facilities following termination of the training mission indicated no residual effects of the use of the training devices.

3.2.11 Pollution Prevention

Pollution prevention at Fort Sheridan is managed through the installation hazardous waste management program described in Section 3.2.2 in accordance with AR 200-1, Chapter 6, and applicable federal and state regulatory requirements. The Fort Sheridan pollution prevention program includes elements of the Stormwater Pollution Prevention Plan, the SPCC plan, and the standard operating procedures and guidance memoranda.

3.2.12 Mixed Waste

There is no mixed waste generated at Fort Sheridan.

3.2.13 Radiation

The use of munitions containing depleted uranium was addressed by an U.S. Army-wide NRC permit. Radioactive testing instruments, watches and compasses were used and stored on-post. However, there is currently no known radioactive material in the disposal and reuse parcels.

3.2.14 Lead-based Paint

Lead-based paint at Fort Sheridan is managed in accordance with DOA policy guidance "Lead-Based Paint and Asbestos in U.S. Army Properties Affected by Base Realignment and Closure." A lead-based paint survey has not been conducted at the installation. In lieu of quantitative data, lead-based paint is assumed to be present in all installation buildings constructed prior to 1978.

3.2.15 Unexploded Ordnance

A survey conducted in 1993 indicated that 50 acres including and adjacent to Landfill 2 contain UXO. The UXO detected during the survey was removed when feasible or was turned over to military Explosive Ordnance Disposal (EOD) specialists who detonated the UXO in place. The final report (February 1994) identifies the need for 100 percent clearance surveys from the surface to a subsurface depth of least 4 feet.

3.2.16 Medical Waste

There is currently no medical waste generated at Fort Sheridan. The 1989 ENPA indicates the health clinic generated about 5 kilograms per day of infectious wastes. These wastes were autoclaved and disposed of with the general refuse in a regional sanitary landfill. Prior to the 1970s, medical and veterinary wastes were disposed of in the landfills on post. In the early 1970s, medical wastes were hauled daily to the Great Lake Training Center for incineration in a pathological waste incinerator.

3.2.17 National Environmental Policy Act

The Fort Sheridan Base Closure Final EIS has been completed and a ROD has been signed. A Final EA for the disposal and reuse of Fort Sheridan, Illinois has also been prepared (September 1993). The FNSI is currently being reviewed by the U.S. Army.

3.2.18 Other Compliance Programs

Fort Sheridan has a Stormwater Pollution Prevention Plan in place (January 1994) and an updated SPCC plan (November 1992) to minimize the potential for contamination of surface and groundwater. The Stormwater Pollution Prevention Plan will need to be considered and potentially integrated into any reuse planning for the disposal and reuse parcels.

3.3 Status of Natural and Cultural Resources Programs

Although Fort Sheridan does not have formalized management plans for natural and cultural resources, these resources are managed in accordance with AR 420-74 and 420-40, DoD Directive 4700.4 and 4710.1, and applicable federal and state regulations and statutes.

More detailed natural resource identification and description may be required prior to economic redevelopment and property reuse. Natural and cultural resources will also be considered during the environmental remedy selection process so that accidental impacts to these resources can be prevented.

This section describes the current status of the natural and cultural resources at Fort Sheridan including a brief description of the vegetation, wildlife, wetlands and preservation areas; rare, threatened and endangered species; and cultural resources. The information available on biological resources present or potentially present on Fort Sheridan is based on studies conducted in 1977.

3.3.1 Vegetation

About 600 acres of Fort Sheridan are developed and consist primarily of buildings, pavement, horticultural plantings and lawns. Most of the natural vegetation on-post is associated with the ravines and the bluff areas. Janes Ravine is the least disturbed ravine system along the Illinois Shore of Lake Michigan. Janes Ravine has been included in the Illinois Natural Areas Inventory (INAI). Other ravines on-post are significantly disturbed by landfills or roadways, but in some

locations still support elements of natural ravine vegetation. An area of bluff above Lake Michigan, just south of the disposal and reuse parcels, supports approximately 6 acres of natural open prairie-like vegetation that is also of state-wide significance. It is also the largest remaining area of prairie-like vegetation that once occurred along the Lake Michigan shoreline in Illinois. The location of this vegetation type in Fort Sheridan has also been included in the INAI. The locations of these unique vegetation types are delineated in Figure F-1 of Appendix F.

In relatively undisturbed areas, the ravines support a deciduous woodland dominated by basswood (*Tilia americana*), sugar maple (*Acer saccharinum*), ash (*Fraxinus spp.*), and elm (*Ulmus americana*). The most characteristic shrub is witch hazel (*Hamamelis virginiana*). The diverse herbaceous cover is described briefly in the Base Closure EIS and the Disposal and Reuse EA. No detailed mapping of the vegetation types on Fort Sheridan is available.

3.3.2 Wildlife

Information on wildlife at Fort Sheridan is based primarily on studies conducted in 1977. A variety of common small mammals, amphibians and reptiles are present at Fort Sheridan. These species occur primarily in the natural areas in the ravines and undeveloped areas of the post. The bird species known to occur on the post include woodland species, waterfowl, and hawks and gulls. In addition, Fort Sheridan is located in the migration corridor for the peregrine falcon (*Falco peregrinus*) and they have been observed along the lake shore.

3.3.3 Wetlands

A detailed survey and delineation of wetlands was performed in 1977. During the UXO survey in 1993, the UXO team identified two previously unrecorded wetlands. Several wetland areas are present on Fort Sheridan. Two small wetlands occur near the fish pond (Figure F-1) in the northeast area of the post. A lacustrine-littoral-unconsolidated shoreline wetland is present below the officer housing area in the disposal and reuse parcels. The wetland locations are delineated in Figure F-1 of Appendix F.

3.3.4 Designated Preservation Areas

Designated preservation areas will include both INAI vegetation areas, wetlands, relatively undisturbed ravine slopes supporting native vegetation, and the designated historic district. In addition, other historic and prehistoric resources outlined in the 1993 report "Literature Review, Architectural Evaluation and Phase I Archaeological Reconnaissance of Selected Portions of Fort Sheridan, Illinois" will be subject to the protection required by the Memorandum of Agreement (MOA) on cultural resources. These areas are included in Figure F-1 of Appendix F.

3.3.5 Rare, Threatened and Endangered Species

A threatened and endangered species survey was conducted in 1977. Additional reconnaissances by the INAI staff were conducted in 1988.

Eleven species of plants listed by the State of Illinois as threatened or endangered occur on the Fort Sheridan property or in the McCormick Nature Preserve adjacent to the Janes Ravine portion of Fort Sheridan. These species are listed in Table 3-9. No federally listed plant species are currently known to occur on the post.

TABLE 3-9. STATE OF ILLINOIS THREATENED AND ENDANGERED PLANT SPECIES KNOWN TO OCCUR ON OR ADJACENT TO FORT SHERIDAN

Common Name	Scientific Name	Last Status	Seen
Ground Juniper	<i>Juniperus communis</i> (*) <i>L. var. depressa pursh.</i>	Threatened	1978
Pale Vechling	<i>Lathyrus ochroleucus (R)</i>	Threatened	1977
Rice Grass**	<i>Oryzopsis racemosa</i>	Threatened	1976
Small Solomon's Seal	<i>Polygonatum pubescens (R)</i>	Endangered	1977
Arbor Vitae	<i>Thuja occidentalis (*)</i>	Threatened	1978
Star Flower	<i>Trientalis borealis (R)</i>	Threatened	1977
Dog Violet	<i>Viola conspersa (R)</i>	Threatened	1978
Canadian Buffalo-berry	<i>Sherpherdia canadensis (B)</i>	Endangered	1978
Weak Bluegrass**	<i>Poa languida (R)</i>	Endangered	1988
Grove Bluegrass**	<i>Poa alsodes</i>	Endangered	1988
Purple Flowering Raspberry**	<i>Rubus odoratus</i>	Endangered	1976

**These four species were found in McCormick Ravine - U.S. Army Corps of Engineers, 189a.

Key: (B) = Plants found on Bluff Ravine
 (R) = Plants found in Janes Ravine
 (*) = Found at Bluff and Janes Ravine

Source: Illinois Department of Conservation, 1978 and 1988.

Five state-listed and two federally-listed bird species are known to have been present on the post, although none has been observed to nest on the post. These species include the Forster's tern (*Sterna forsteri*, state-endangered), common tern (*Sterna hirundo*, state-endangered), brown creeper (*Certhia familiaris*, state-endangered), veery (*Catharus fuscescens*, state-threatened), piping plover (*Charadrius melodus*, federal-endangered) and the peregrine falcon (*falco peregrinus*, federal-endangered).

3.3.6 Cultural Resources

There are historically significant structures located at Fort Sheridan (Figure F-1). A major portion of the disposal and reuse parcel includes the Fort Sheridan Historic District which is on the National Register of Historic Places and is designated as a National Landmark. A report entitled "Literature Review, Architectural Evaluation, and Phase I Archaeological Reconnaissance of Selected Portions of Fort Sheridan, Illinois" was prepared in September 1993. A MOA between the DOA, the Advisory Council on Historic Preservation and the Illinois State Historic Preservation Officer concerning disposal of Fort Sheridan, Illinois has been prepared.

These requirements in the MOA include a standard preservation covenant to be incorporated into the transfer documents and recorded in the real estate records of Lake County, Illinois. The MOA also includes a requirement for the recipient to agree to prepare and implement an approved development and management plan. It is designed to ensure protection and preservation of the historical district and other cultural resource values. A copy of the MOA is provided in Appendix F.

3.3.7 Other Resources

No other resources have been identified that would be affected by the disposal and reuse actions at Fort Sheridan.

3.4 Environmental Condition of Property

In October 1992, Public Law 102-426, CERFA amended Section 120(h) of CERCLA and established new requirements with respect to contamination assessment, cleanup, and regulatory agency notification/concurrence for federal facility closures. CERFA requires the federal government, before termination of federal activities on real property owned, to identify property where no hazardous substances were stored, released, or disposed of. These requirements retroactively affect the U.S. Army BRAC 88 and BRAC 91 environmental restoration activities, and are being implemented at BRAC 93 sites concurrently with their ENPAs. The primary CERFA objective is for federal agencies to expeditiously identify real property offering the greatest opportunity for immediate reuse and redevelopment. Although CERFA does not mandate the U.S. Army transfer real property so identified, the first step in satisfying the objective is the requirement to identify real property where no CERCLA-regulated hazardous substances or petroleum products were stored, released, or disposed.

An investigation to identify the environmental condition of property in compliance with CERFA has been conducted at Fort Sheridan. CERFA investigations included the following assessment procedures:

- ▶ A review of historical records,
- ▶ Interviews with current and past installation employees, and
- ▶ A visual site inspection.

During the CERFA investigation process, installation property was assigned to four categories, or parcel types. These categories are CERFA parcel, CERFA parcel with qualifiers, CERFA disqualified parcels, and CERFA excluded parcels as defined below.

An environmental condition of property map provided as Figure 3-2 identifies property at the installation based on these four parcel categories. The parcels are delineated using a 1-acre square grid for boundary definition. Where CERFA disqualified parcels and CERFA parcels with qualifiers have coincided, the overlapped area has been designated CERFA disqualified.

3.4.1 CERFA Parcels

CERFA parcels are those portions of the installation real property for which investigation reveals no evidence of storage for one year or more, release, or disposal of CERCLA hazardous substances, petroleum, or petroleum derivatives and no evidence of being threatened by migration of such substances. CERFA Parcels also include any portion of the installation which once contained non-CERCLA hazards, including asbestos, UXO, lead-based paint, and radionuclides, but has since been fully remediated.

3.4.2 CERFA Parcels with Qualifiers

CERFA parcels with qualifiers are those portions of the installation real property for which investigation reveals no evidence of storage for one year or more, release, or disposal of CERCLA hazardous substances, petroleum, or petroleum derivatives and no evidence of being threatened by migration of such substances. Parcels do however, contain non-CERCLA related hazards including the presence of asbestos, UXO, lead-based paint, radionuclides, radon, or stored (not in use) PCB containing equipment.

3.4.3 CERFA Disqualified Parcel

CERFA disqualified parcels are those portions of the installation real property for which there is evidence of CERCLA hazardous substance, petroleum, or petroleum derivative storage for one year, release or disposal, or threatened by such release or disposal. CERFA disqualified parcels also include any portion of the installation containing a PCB release or disposal, any EOD locations, any storage sites of chemical ordnance, and any areas in which CERCLA hazardous substances or petroleum products have been released or disposed and subsequently fully remediated.

3.4.4 CERFA Excluded Parcel

CERFA excluded parcels are those portions of the installation real property retained by the DoD, and therefore not explicitly investigated for CERFA. CERFA excluded parcels also include any portion of the installation which have already been transferred by deed to a party outside the federal government, or by transfer assembly to another federal agency.



EXPLANATION

- Installation Boundary
- CERFA Parcel
- CERFA Parcel with Qualifier(s)
- CERFA Disqualified Parcel
- ▨ CERFA Excluded Parcel

Environmental
Condition
of Property



0 650 1300
FEET

Figure 3-2

Fort Sheridan, Illinois

3.4.5 Suitability of Installation Property for Transfer by Deed

SARA Title I, Section 120 to CERCLA requires that any deed for federal property being transferred on which any hazardous substance was stored for one year or more, known to have been released, or disposed of contains, to the extent such information is available, the following information:

- ▶ A notice of the type and quantity of such hazardous substances,
- ▶ Notice of the time at which such storage, release, or disposal took place,
- ▶ A description of the remedial action taken, if any, and
- ▶ A covenant warranting that all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of such transfer, and any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States.

The U.S. Army has begun the identification of property suitable for transfer under CERCLA through the CERFA identification process. The CERFA process is an effective screening mechanism to expeditiously identify those properties immediately transferable. These properties, designated CERFA parcels and CERFA parcels with qualifiers, have had no activities which could potentially preclude them from transfer under CERCLA.

CERFA disqualified properties consist of those which have experienced CERCLA hazardous substance storage, POL storage, hazardous substance releases or POL releases. Under SARA Title I, Section 120 to CERCLA only those properties which have experienced a hazardous substance release which has not been remediated and for which there is no "remedy in place" are currently unsuitable for transfer to a non-federal entity. These properties typically represent a small portion of the CERFA disqualified property.

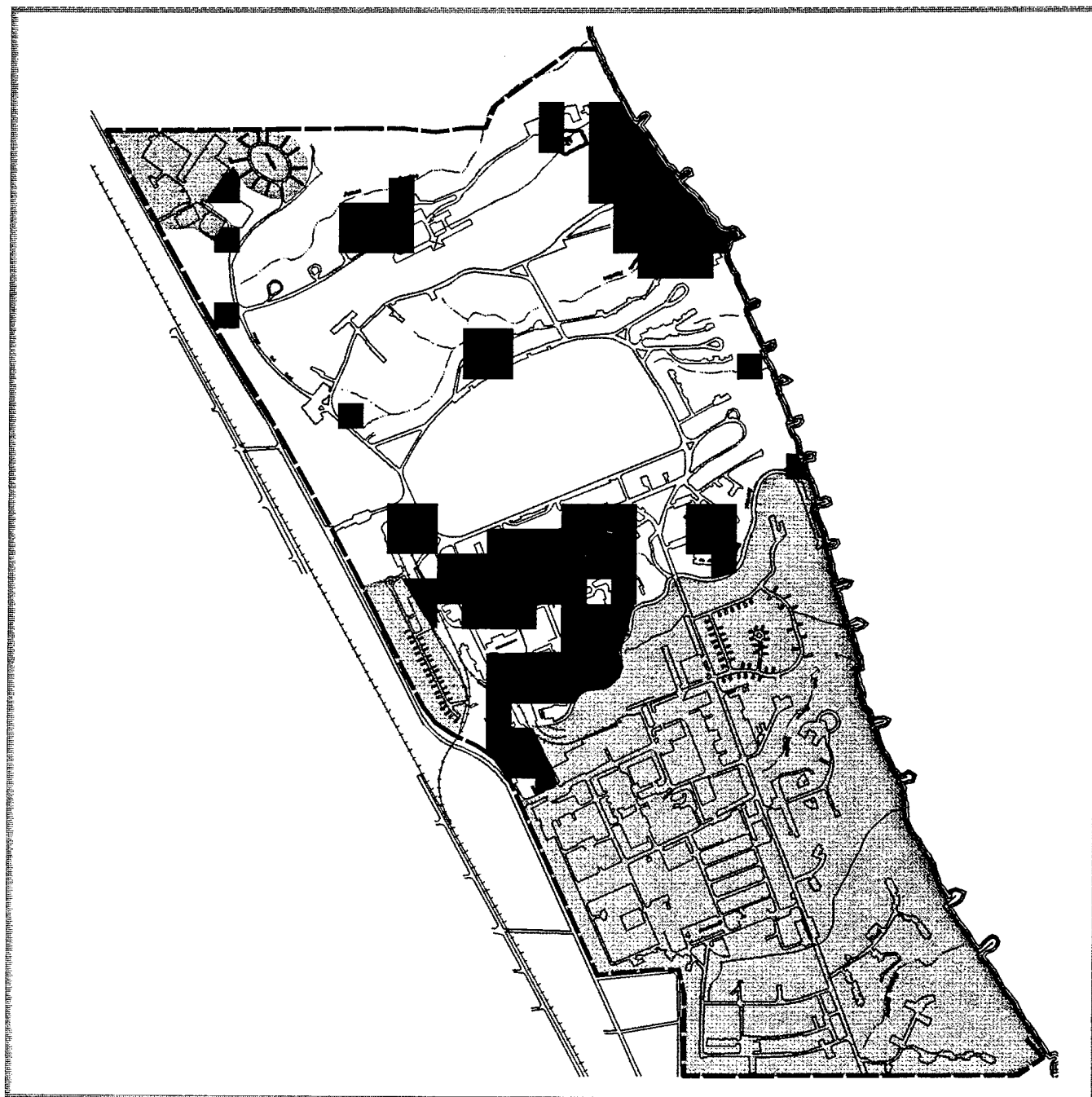
Figure 3-3 identifies CERFA parcels and CERFA parcels with qualifiers which are immediately transferable under CERCLA as well as CERFA disqualified parcels. The U.S. Army is continuing the identification process for property suitable for transfer including the refinement of CERFA disqualified parcels into those suitable and unsuitable for transfer under CERCLA.

3.5 Status of Community Involvement

Community relations activities that have taken place at Fort Sheridan to date include the following:

- ▶ **EIS Process.** During the development of the closure EIS and the disposal and reuse EA, numerous public scoping meetings were held. Public comments were received by the U.S. Army on draft EIS documents and were addressed in final versions of these documents.

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EXPLANATION

--- Installation Boundary

□ CERFA Parcel and CERFA Parcel with Qualifier(s) *

■ CERFA Disqualified Parcel **

▨ CERFA Excluded Parcel

* CERFA Parcels and CERFA Parcels with Qualifier(s) are areas suitable for current transfer under SARA Title I, Section 120 of CERCLA.

** CERFA Disqualified Parcels are areas with current or historic POL/Hazardous Substance Storage and/or releases. Only unremediated hazardous substance release sites or those without a remedy in place are unsuitable for transfer to a non-federal entity under SARA Title I, Section 120.

0 650 1300
FEET

Suitability of
Property for
Transfer

Figure 3-3

Fort Sheridan, Illinois

- ▶ **Information Repositories.** A public repository for information will be established on post or in a nearby public library. It contains information relative to environmental activities at Fort Sheridan.
- ▶ **Administrative Record.** An Administrative Record File will be established at Fort Sheridan in accordance with CERCLA requirements. A copy of the Administrative Record File index will be on file at USEPA Region V headquarters.
- ▶ **Community Relations Plan.** A Draft Community Relations Plan (CRP) has been prepared for Fort Sheridan and is currently being reviewed by the U.S. Army.
- ▶ **Restoration Advisory Board (RAB).** The RAB is in the process of being formed. Draft letters requesting nominations for the RAB are in final review. Distribution is to be made in late March or April 1994.
- ▶ **Technical Assistance Grant (TAG).** The USEPA has awarded a TAG to the Fort Sheridan Commission for reuse planning and in 1991. A community reuse plan was completed. In 1993 the Fort Sheridan Joint Planning Committee was formed to reevaluate the planning effort and develop a refined reuse plan. The Joint Planning Committee is considering submitting an application for a TAG.
- ▶ **Mailing List.** A mailing list of all interested parties in the community is being developed and will be maintained by the BCT and updated regularly.
- ▶ **News Releases.** One news release describing the status of the environmental restoration and evaluation activities at Fort Sheridan has been distributed to the mailing list to date.
- ▶ **Workshops.** A workshop with homeless assistance organizations and advocates was held in February 1994 to present options and capability of Fort Sheridan to meet the needs of the homeless under the McKinney Act requirements.

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CHAPTER 4

► INSTALLATION-WIDE STRATEGY FOR ENVIRONMENTAL RESTORATION ◀

This chapter describes and summarizes the installation-wide environmental restoration and compliance strategy for Fort Sheridan. Prior to 9 January 1989, IRP projects were underway to identify, characterize, and remediate environmental contamination at Fort Sheridan. With the closure announcement, the installation's strategy shifted from supporting an active U.S. Army mission to responding to disposal and reuse considerations.

The strategy for determining the most effective response mechanism for contaminant sources and contaminated areas during the early stages of the restoration process at the installation has been performed on a case-by-case basis by the BCT. The BCT has developed a comprehensive strategy to identify the appropriate regulatory programs applicable to the areas of contamination discovered during the restoration program.

4.1 Zone/OU Designation and Strategy

Zones define an installation's investigative strategy. Zones are geographically contiguous areas amenable to management as a single investigative unit. Zones can be used to group multiple sites and environmental data collected during one or more investigations into related geographic areas for detailed mapping, and facilitate the development of conceptual models of sources, migration pathways, and receptors. Zones are distinct from OU response actions.

OUs define an installation's remedial strategy. They are derived from an evaluation of hydrogeologic and chemical analytical data within an investigative zone, or by comparing data between zones. OU types may be based on geographic area, common media (soil, groundwater, surface water, other), common treatment technology, priorities, or schedules. OUs establish a logical sequence of discussions that address contamination releases in a comprehensive fashion.

4.1.1 Zone Designations

The Fort Sheridan BCT has not designated zones on Fort Sheridan or in the disposal and reuse parcels. The Fort Sheridan BCT will coordinate with the RI/Risk Assessment/FS contractor, the USACE, and the remediation contractor to integrate AREEs, AOCs, and/or sites into zones and OUs as appropriate.

4.1.2 OU Designations

As of March 1994, the Fort Sheridan BCT has designated three OUs within Fort Sheridan. Two of the OUs include areas within the disposal and reuse parcels. OU 1 includes USTs within the disposal and reuse parcels as well as the Department of the Navy property and the U.S. Army

Reserve lands. OU 2 also includes USTs in both disposal and reuse parcels and the excluded areas remaining in Department of the Navy and DOA ownership. OU 3 is the Landfill 6 and 7 area of the remaining DOA/Department of the Navy areas. The UST OUs are based on the timeframe during which they were removed. The UST OUs cannot be depicted in a figure (Figure 3-1) because they are not based on their geographical proximity or other relationships. The relationship between restoration sites, zones, OUs, and disposal and reuse parcels as they are currently designated is presented in Table 4-1. The Fort Sheridan BCT will identify and designate OUs as they are appropriate to the areas requiring remedial response actions. If necessary, additional elements will be added to Table 4-1.

TABLE 4-1. RELATIONSHIP BETWEEN RESTORATION SITES, OUS, AND PARCELS

Parcel	Zone	OU	Site
1	NA	OU 1 and OU 2	
2	NA	OU 1 and OU 2	

Key: NA = Not Applicable

4.1.3 Sequence of OUs

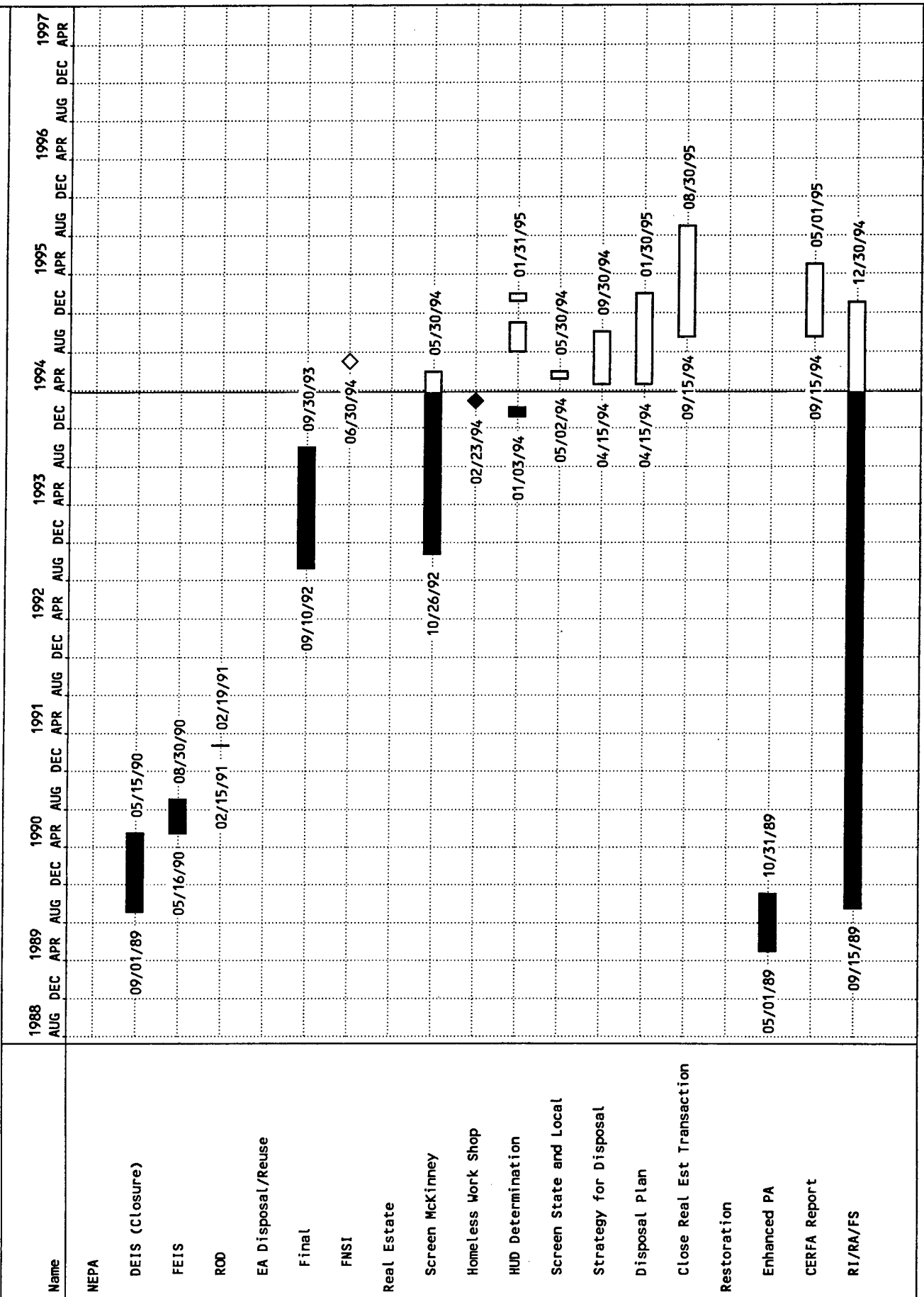
The sequencing of OUs will be determined by the BCT based on potential levels of hazard to human health, the need to expedite remediation and cleanup leading to the transfer and reuse of the disposal parcels. The sequence of OU 1 and OU 2 outlined in Table 4-2 was based on the need to remove USTs in a timely manner from the disposal and reuse parcels in order to eliminate potential contamination sources.

A comprehensive OU strategy will be developed by the Fort Sheridan BCT. This strategy will consolidate IRP sites into zones for investigation based on the results of the RI/Risk Assessment/FS, and then define a logical sequence of OUs addressing all past releases and/or other conditions associated with these sites. In addition to defining OUs, the environmental response strategy:

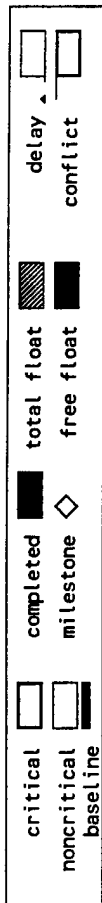
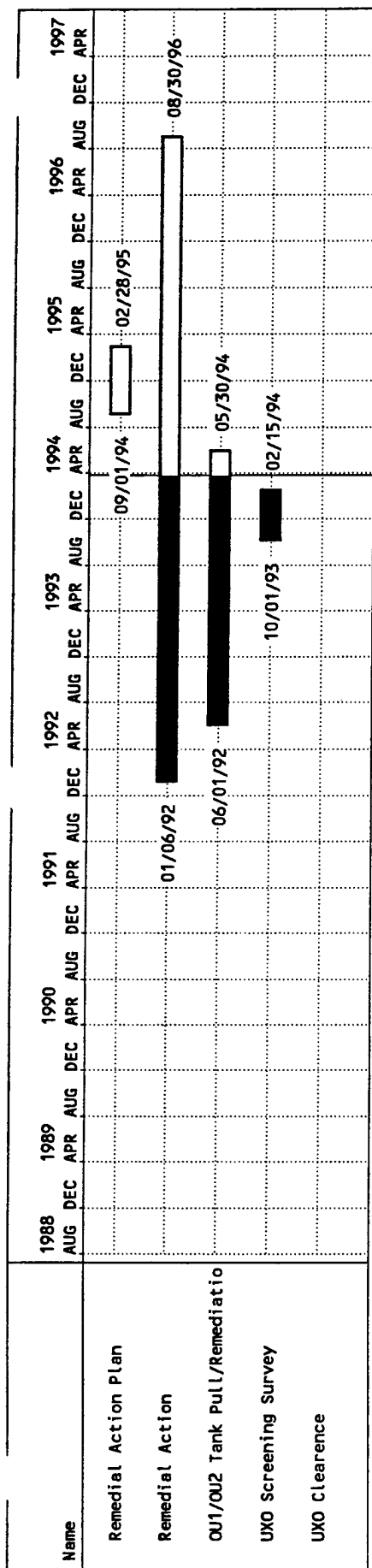
- ▶ Evaluates the need to target the UXO area for early response action.
- ▶ Streamlines the document review process by defining an 8- to 9-month review cycle between submittal of a draft FS and the submittal of a draft ROD
- ▶ Initiates remedial design (RD) during the proposed plan (PP) and ROD review process so that final designs can be in place as soon as possible after the ROD is signed. This initiative is only applicable for sites where the proposed response or remedial action has general approval from regulators.

PROJECT: Fort Sheridan
 MANAGER: Allan Balliet
 CURRENT DATE: 03/25/94
 AS OF DATE: 03/25/94

Figure 4-1



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TABLE 4-2. CLEANUP SEQUENCE

Reuse Parcel	Zone	OU	Environmental Risk	Reuse Priority	Cleanup Sequence	Reconcile Comments
1	NA	OU 1/OU 2	None	1	1	Closure report submitted in final approval.
2	NA	OU 1/OU 2	None	1	2	Closure in process. Tanks removed.

Key: NA = Not Applicable

The current OU cleanup sequence for the Fort Sheridan disposal and reuse parcels is summarized in Table 4-2. The OU sequence also be depicted in the schedule provided as Figure 4-1 as OUs are designated and this BCP is updated. The schedule also identifies the timeline for the generation of primary documents necessary for completion of the OU cleanup actions.

The schedule was developed using the critical path analysis method with the following components:

- ▶ **Critical.** Critical jobs are those in which any extension in their duration will cause an equivalent delay in the project. Often referred to as the critical path. Normally the cumulative time span from the start of the first critical job to the end of the last critical job is the duration of the project.
- ▶ **Noncritical.** Noncritical jobs are usually subtasks required to accomplish the critical job. The start and end dates may be varied within the project parameters. However, variations in the timeframe may result in an impact to the critical job of the project.
- ▶ **Baseline.** A set of "original" schedule dates that can be compared with the current schedule to determine if the project has slipped.
- ▶ **Completed Duration.** A measure in time periods of the portion of a job that is completed. A corresponding value will be displayed in the percent complete field and remaining duration field after the completed duration value has been entered.
- ▶ **Milestone.** A project event that represents a checkpoint, a major accomplishment, or a deliverable result. There is no time duration associated with a milestone.
- ▶ **Total Float.** The total length of time that a noncritical job can be delayed before it causes the project or a critical job to slip or causes a job to not meet its target date.
- ▶ **Free Float.** The length of time a noncritical job can be delayed without affecting another job.

- ▶ **Delay.** A waiting period that prevents the job from starting at its earliest possible start time. Delay times can either be input by the user or assigned by the program to resolve resource conflicts.
- ▶ **Conflict.** The amount of time a job overruns its target date. This is also called "negative float".

The RI/Risk Assessment/FS document for Fort Sheridan is in the process of being finalized. No IRP sites, zones, or OUs have been designated for the disposal and reuse parcels based on the RI/Risk Assessment/FS documentation. The need to address concerns about the USTs was raised in the draft RI/Risk Assessment report of June 1992. The first set of USTs (OU 1) was removed by the end of July 1992. The second set (OU 2) was removed in February 1994. The activities related to the RI/FS process and the OUs associated with the Fort Sheridan disposal and reuse parcels is summarized below:

- ▶ **OU 1**

RI Report	June 1992
UST Remediation	July 1992
Closure Report	April 1994 (estimated)
- ▶ **OU 2**

RI Report	June 1992
UST Remediation	May 1994 (estimated)
Closure Report	October 1994 (estimated)
- ▶ **Landfill 2**

ENPA	October 1989
Draft RI Report	June 1992
CERFA Report	October 1993
Ordnance Survey	
Draft Technical Report	February 1994
UXO Clearance Survey	To Be Determined
- ▶ **Landfill 1**

ENPA	October 1989
Draft RI Report	June 1992
CERFA Report	October 1993
Further Actions (if any)	To Be Determined
- ▶ **Landfills 3/4**

ENPA	October 1989
Draft RI Report	June 1992
CERFA	October 1993
Further Actions (if any)	To Be Determined

4.1.4 Environmental Restoration Early Actions Strategy

No environmental restoration early IRP actions are anticipated at Fort Sheridan. However, Table 4-3 is provided should any early actions need to be initiated.

TABLE 4-3. ENVIRONMENTAL RESTORATION PLANNED EARLY ACTIONS

Site	UST No. (or other unit identifier)	Action	Objective	Time Frame
	Currently, no early environmental restoration actions are planned in the disposal and reuse parcels on Fort Sheridan. Future changes will be reflected here.			

Other AREEs or AOCs identified in the RI report and the CERFA report will be evaluated and considered by the BCT for early actions. Examples of such AOCs are the UXO in and adjacent to Landfill 2 and the noncarcinogenic health risks at Landfill 3/4.

4.1.5 Remedy Selection Approach

Remedies will be selected in accordance with statutory and National Oil and Hazardous Substances Pollution Contingency Plan (NCP) criteria. The Fort Sheridan Project Team will involve all parties who have an impact on the remedies selected at the installation in the remedy selection process. Particular attention will be given to the following during the evaluation of alternatives:

- ▶ **Applicable or Relevant and Appropriate Requirements (ARARs).** Applicable requirements for anticipated remedial actions will be identified through Project Team communication and coordination. The effectiveness of alternatives in reducing concentrations of contaminants to chemical-specific ARARs will be evaluated. Waivers will be considered where treatment to standards is technically impractical
- ▶ **Land Use/Risk Assessment.** Risk assessment protocols will incorporate consideration of future land use in exposure scenarios
- ▶ **Applicable Remedies.** The presumptive remedy selection approach advocated in USEPA's 30-day study will be applied in selected cases. Focused FSs will be developed where appropriate

- ▶ **POL Remedies.** Source-specific actions for POLs will be addressed under the state UST program or under the RCRA closure process since POL releases at Fort Sheridan have occurred as a result of USTs and due to spills
- ▶ **Future Land Use.** Cleanup goals need to be factored into future land use and/or deed restrictions. This will require coordination and integration of information from the EIS/EA analysis, the RI/Risk Assessment/FS process, the ENPA, the CERFA report, the community reuse plan, and any proposed development and management plans.

The BEC will hold Project Team meetings to discuss conceptual remedies early in the FS process (initial screening of alternatives [ISA] stage) to ensure the FS focuses on the appropriate types of remedies for each site or OU.

4.2 Compliance Strategy

This section describes the strategies for addressing compliance related environmental issues at Fort Sheridan prior to installation closure and/or property transfer. These environmental compliance strategies have been developed to ensure that installations are compliant with federal and state regulatory programs, DoD and U.S. Army directives and regulations throughout the BRAC process.

If required, early actions could be implemented as part of the Fort Sheridan compliance program to remove contaminant sources and reduce risk posed by releases or potential releases. These early actions are described below and are identified in Table 4-4.

TABLE 4-4. ENVIRONMENTAL COMPLIANCE PLANNED EARLY ACTIONS

Site	UST No.	Action	Objective	Time Frame
OU 1	B7-A1	Tank removed 1993	Eliminate spill potential/health hazard	Pending State approval
OU 1	DE-A	Tank removed 1993	Eliminate spill potential/health hazard	Pending State approval
OU 1	C3-A1	Tank removed 1993	Eliminate spill potential/health hazard	Pending State approval
OU 1	E6-A1	Tank removed; removed 330 yd ³ soil 1993	Eliminate spill potential/health hazard	Pending State approval
OU 2	D8-B1	Tank removed 1993	Eliminate spill potential/health hazard	Closure report in progress
OU 2	D8-C1	Tank removed 1993	Eliminate spill potential/health hazard	Closure report in progress
OU 2	D8-C2	Tank removed 1993	Eliminate spill potential/health hazard	Closure report in progress
OU 2	D8-B2	Tank removed 1993	Eliminate spill potential/health hazard	Closure report in progress

TABLE 4-4. ENVIRONMENTAL COMPLIANCE PLANNED EARLY ACTIONS

Site	UST No.	Action	Objective	Time Frame
OU 2	E7-A1	Tank removed 1993	Eliminate spill potential/health hazard	Closure report in progress
OU 2	D7-A1	Tank removed 1993	Eliminate spill potential/health hazard	Closure report in progress
OU 2	E9-B1	Tank removed 1993	Eliminate spill potential/health hazard	Closure report in progress

4.2.1 Storage Tanks

The compliance strategy for storage tanks has been implemented. All USTs in the disposal and reuse parcels have been removed. OU 1 closure is complete pending final approval of the closure report. The USTs in OU 2 have been removed and the closure process is underway. Following removal of the USTs, some were replaced with ASTs with secondary containment. All existing ASTs have been provided with secondary containment.

4.2.2 Hazardous Materials/Waste Management

If any hazardous materials and hazardous wastes are handled at Fort Sheridan, they will continue to be managed in accordance with federal, state, and U.S. Army regulations.

4.2.3 Solid Waste Management

Solid waste is currently disposed of in a regional sanitary landfill off-post. No changes in the solid waste management program are currently planned as part of the BCP process.

4.2.4 Polychlorinated Biphenyls (PCBs)

The BCT will evaluate the need for additional transformer removals. As of March 1994 no PCB compliance activities are planned at Fort Sheridan.

4.2.5 Asbestos

Damaged asbestos has been removed from buildings in the disposal and reuse parcels and asbestos abatement is continuing installation-wide. The presence of asbestos in the buildings that are transferred will be included in the deed transfer documentation.

4.2.6 Radon

Radon surveys of the buildings in the disposal and reuse parcels indicate one building had elevated levels of radon. Because the building is currently unoccupied, no radon compliance activities are planned as of March 1994.

4.2.7 RCRA Facilities (SWMUs)

No RCRA facilities or RCRA waste generating activities are present within the disposal and reuse parcels and no compliance strategy is necessary.

4.2.8 NPDES Permits

Fort Sheridan does not currently require a NPDES permit. There are no plans to obtain a NPDES permit for any activities within the disposal and reuse parcels.

4.2.9 Oil/Water Separators

No oil/water separators are in use in the disposal and reuse parcels. The oil/water separator installed in Building 51 during the 1980-1982 timeframe has not been used since 1989.

4.2.10 NRC Licensing

An U.S. Army-wide NRC license was in place for the use of depleted uranium in dummy munitions. No installation-specific NRC licenses were ever required at Fort Sheridan; therefore, no compliance strategy is necessary.

4.2.11 Pollution Prevention

The appropriate elements of the SPCC plan and the stormwater pollution prevention plan will continue to be implemented until the disposal and reuse parcels are transferred.

4.2.12 Mixed Wastes

There is no mixed waste generated at Fort Sheridan; therefore, there are no compliance requirements or strategies under this program for the installation.

4.2.13 Radiation

There are no radioactive wastes generated at Fort Sheridan; therefore, there are no compliance requirements or strategies under this program for the installation.

4.2.14 Lead-Based Paint

No surveys have been conducted for lead-based paint in the disposal and reuse parcels. The BCT will consider the need to conduct a lead-based paint survey in the disposal and reuse parcels.

4.2.15 Unexploded Ordnance (UXO)

Results of the ordnance survey (February 1994) indicate that a 100 percent clearance survey should be conducted at Fort Sheridan.

4.2.16 Medical Wastes

There is no medical waste generated at Fort Sheridan; therefore, there are no compliance requirements or strategies under this program for the installation.

4.2.17 NEPA

Following the U.S. Army's review of the FNSI, action will be taken as needed.

4.2.18 Other Compliance Programs

The Stormwater Pollution Prevention Plan will need to be considered and potentially integrated into any reuse planning for the disposal and reuse parcels.

4.3 Natural and Cultural Resources Strategy(ies)

This section discusses the strategies for natural and cultural resource programs at Fort Sheridan developed to manage these resources throughout the BRAC cleanup and installation closure process.

4.3.1 Vegetation

Fort Sheridan will continue to maintain the existing vegetation until the disposal and reuse parcels are transferred. The BCT will evaluate the need to update the existing data on the vegetation present in the disposal and reuse parcels to assist in the reuse planning process.

4.3.2 Wildlife

Fort Sheridan will continue to maintain the existing wildlife habitat and populations until the disposal and reuse parcels are transferred. The BCT will evaluate the need to update the existing data on wildlife species present in the disposal and reuse parcels to assist in the reuse planning process.

4.3.3 Wetlands

Fort Sheridan will preserve existing wetlands within the disposal and reuse parcels until the property is transferred. The BCT will evaluate the need to conduct validation studies to confirm

the numbers and types of wetlands present in the disposal and reuse parcels to assist in the planning process leading to the transfer of the property.

4.3.4 Designated Preservation Areas

Fort Sheridan will continue to protect the Janes Ravine and Lake Shore Bluff habitats listed in the INAI as being of state-wide importance and value. These sites will be considered in any reuse planning and remedial action activities.

4.3.5 Rare, Threatened and Endangered Species

Any rare, threatened and endangered or otherwise sensitive species will continue to be protected if observed to be present on Fort Sheridan. The BCT will evaluate the need to update available information on the presence and distributions of sensitive plant and animal species occurring in the disposal and reuse parcels. This will assist the BCT during the reuse planning process and could expedite the transfer of sensitive habitats to the appropriate organizations.

4.3.6 Cultural Resources

Fort Sheridan will continue to preserve and protect the cultural resource values within the Historic District and elsewhere in the disposal and reuse parcels. The planning process will follow the requirement of the MOA and the suggestions in the September 1993 report entitled "Literature Review, Archaeological Evaluation and Phase I Archaeological Reconnaissance". The BCT will evaluate the need to conduct detailed archaeological studies as recommended in the September 1988 report.

4.3.7 Other Resources

No other significant resources are known to be present within the disposal and reuse parcels.

4.4 Community Involvement/Strategy

The draft CRP will be finalized and implemented in a timely fashion to facilitate communication among the U.S. Army, other federal, state, or local agencies, the Fort Sheridan Joint Planning Committee, the RAB, and interested groups and other community residents concerning restoration activities and reuse planning at Fort Sheridan. This communication ensures that all parties involved, or interested, are provided accurate, consistent information in a timely manner concerning related cleanup activities, contaminants, and possible effects of any contamination. It provides mechanisms for all parties to provide input into the decision-making process of the IRP and the reuse planning process.

The Fort Sheridan BCT will consider using the following strategy to support a proactive community relations program in accordance with the CERCLA requirements:

- ▶ Review and update the CRP as needed.
- ▶ Establish a RAB to increase community involvement.
- ▶ Maintain an information repository at the installation or at a nearby community library.
- ▶ Publish fact sheets on the progress of environmental restoration and disposal programs.
- ▶ Continue coordination with the Joint Planning Committee and concerned local agencies.
- ▶ Develop PPs and issue PP fact sheets. Issue public notices two weeks in advance of public comment periods on these plans in two local newspapers.
- ▶ Hold 30-day public comment periods on PPs, and respond to all comments in a responsiveness summary.
- ▶ Hold informal and formal public meetings as required during the response process.
- ▶ Provide an opportunity for public comment on removal actions.

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CHAPTER 5

► ENVIRONMENTAL PROGRAM MASTER SCHEDULES ◄

This chapter presents the Fort Sheridan Master Schedules of anticipated activities in the installation's environmental programs. These schedules are simplified from detailed network and operational schedules developed to support OU-specific work plans and compliance agreements. Environmental restoration activities are graphically summarized in Figure 5-1. Compliance activities are summarized in Figure 5-2 and Figure 5-3. Natural and cultural resource activities are summarized in Figure 5-4. Each of these schedules displays the critical path analysis for the respective installation program. Components in each analysis include critical and noncritical path, baseline, completed duration, milestones, float, delay and conflict. These components are defined in Section 4.1.3.

5.1 Environmental Restoration Program

This section presents response schedules and outlines fiscal year requirements for Fort Sheridan's environmental restoration program.

5.1.1 Response Schedules

The installation's ability to meet the milestones shown on the schedule in Figure 5-1 hinges on the signing of the appropriate DD. The RDs and RAs must be completed according to the schedule. The closure report for OU 1 USTs is currently being reviewed by the IEPA. Closure activities for OU 2 are underway.

5.1.2 Requirements by Fiscal Year

The detailed requirements information by fiscal year is contained in the Fort Sheridan Work Plan and is incorporated into this document by reference. The tables in Appendix A to this document are taken directly from the Work Plan and provide summary information on funding requirements.

5.2 Compliance Programs

This section presents master compliance schedules and outlines fiscal year requirements for Fort Sheridan's environmental compliance programs.

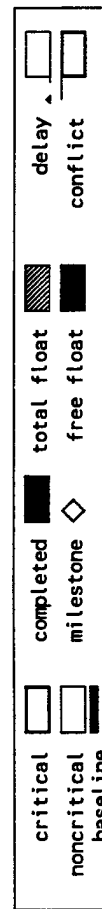
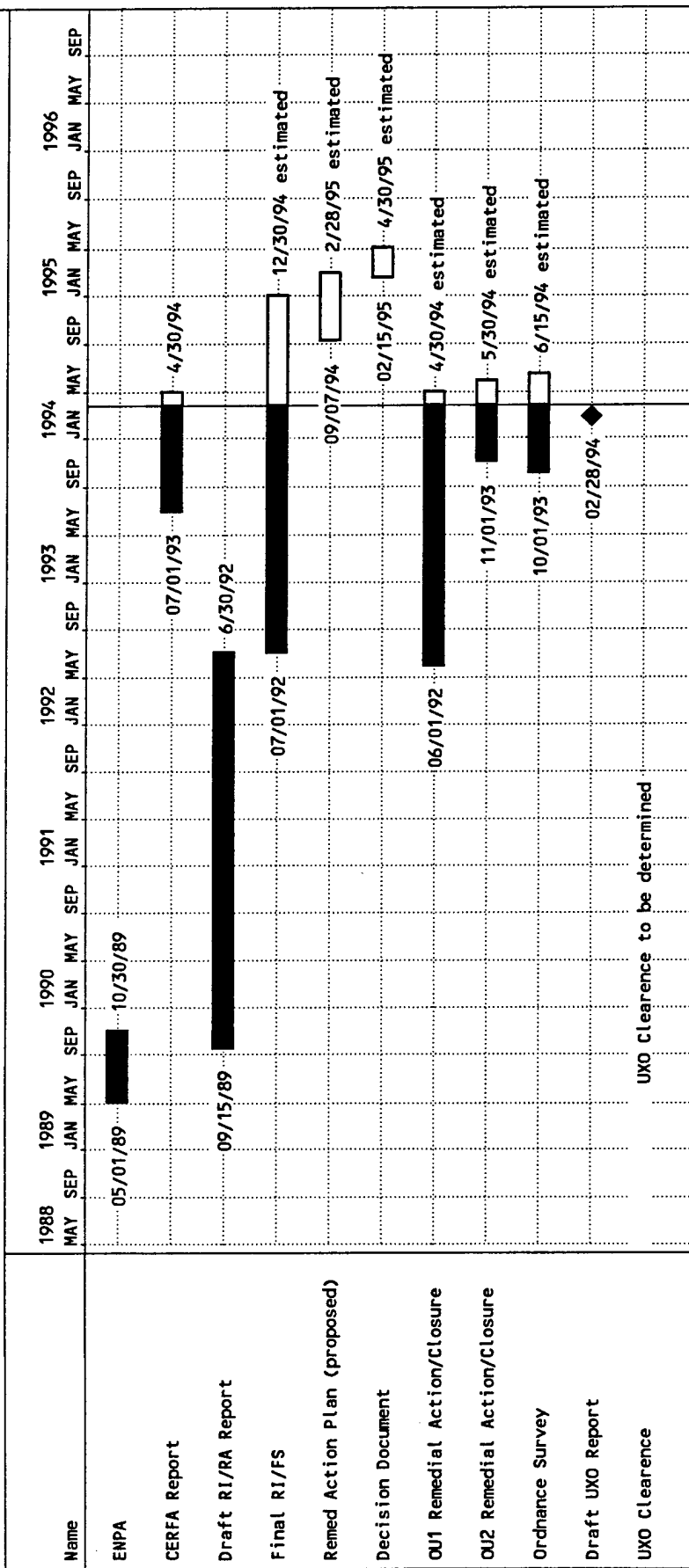
5.2.1 Master Compliance Schedules

There are no mission/operation-related compliance programs at Fort Sheridan (Figure 5-2). The compliance schedule for closure-related compliance programs is provided as Figure 5-3.

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PROJECT: Fort Sheridan
 MANAGER: Allan Balliet
 CURRENT DATE: 03/25/94
 AS OF DATE: 03/25/94

Figure 5-1



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PROJECT: Fort Sheridan
 MANAGER: Allan Balliet
 CURRENT DATE: 03/25/94
 AS OF DATE: 03/25/94

Figure 5-2

Name	1986		1987		1988		1989		1990		1991		1992		1993		1994		1995		1996		
	DEC	APR	DEC	APR	DEC	APR	DEC	APR	DEC	APR	DEC	APR	DEC	APR	DEC	APR	DEC	APR	DEC	APR	DEC	APR	
There are no mission related compliance programs at Fort Sheridan																							

critical

completed

noncritical

baseline

total float

free float

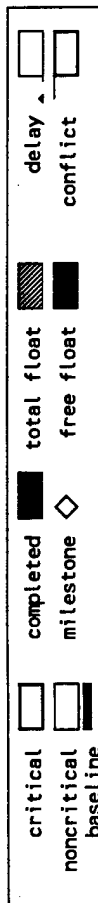
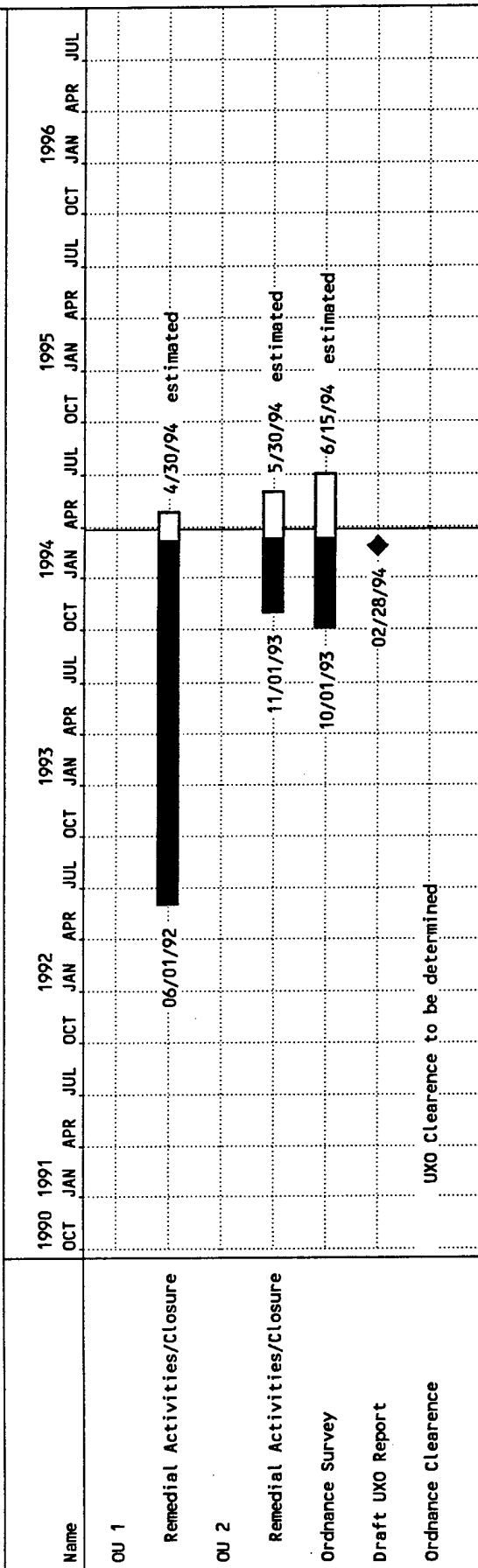
delay

conflict

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PROJECT: Fort Sheridan
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 AS OF DATE: 03/25/94

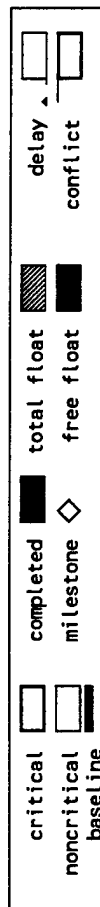
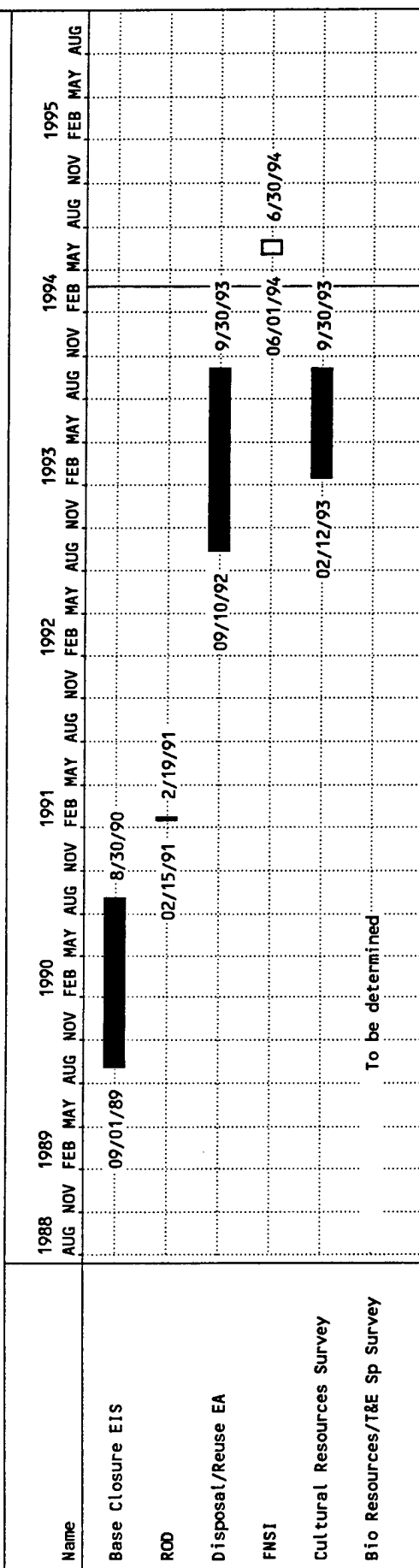
Figure 5-3



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PROJECT: Fort Sheridan
 MANAGER: Allan Balliet
 CURRENT DATE: 03/25/94
 AS OF DATE: 03/25/94

Figure 5-4



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Compliance activities to be completed include closure of the OU 1 and OU 2 UST removal programs. The BCT will evaluate the need to implement a UXO related remedial program.

5.2.2 Requirements by Fiscal Year

The detailed requirements information by fiscal year is contained in the Fort Sheridan Work Plan and is incorporated into this document by reference. The tables in Appendix A to this document are taken directly from the Work Plan and provide summary information on funding requirements.

5.3 Natural and Cultural Resources

This section presents master natural and cultural resources activity schedules and outlines fiscal year requirements for Fort Sheridan natural and cultural resource programs.

5.3.1 Natural and Cultural Resources Schedule(s)

The natural and cultural resources schedule for past projects at Fort Sheridan is provided in Figure 5-4. There are currently no cultural resources projects planned at Fort Sheridan. The BCT will evaluate the need for studies to update the biological information available for the Fort Sheridan disposal and reuse parcels.

5.3.2 Requirements by Fiscal Year

The detailed requirements information by fiscal year is contained in the Fort Sheridan Work Plan and is incorporated into this document by reference. The tables in Appendix A to this document are taken directly from the Work Plan and provide summary information on funding requirements.

5.4 Meeting Schedule

Meetings are scheduled to promote an expedited restoration schedule for Fort Sheridan. Meetings are typically held as follows:

- ▶ BCT Meetings - Monthly
- ▶ Technical/Issue Resolution Meetings - As necessary to facilitate continued progress on restoration/compliance and planning related activities
- ▶ BRAC In-Progress Review Meetings - Monthly as part of the BCT meetings
- ▶ RAB - monthly.

A listing of the currently scheduled BCT meetings is provided in Table 5-1.

TABLE 5-1. BCT MEETING SCHEDULE

Date	Topic
8-9 February 1994	Briefing by USAEC and USACE
17-17 February 1994	Environmental Strategy Planning
22-23 March 1994	Real Estate and Cleanup Progress Integration
April 1994	TBD
22-23 May 1994	TBD
June 1994	TBD

Key: TBD = To Be Determined
 USAEC = U.S. Army Environmental Center
 USACE = U.S. Army Corps of Engineers

CHAPTER 6

► TECHNICAL AND OTHER ISSUES TO BE RESOLVED ◀

This chapter summarizes technical and other issues that are yet to be resolved. These issues include information management; usability of historical data; data gaps; natural (background) levels of elements and compounds in soil, groundwater, surface water, and sediments; risk assessment; state cleanup standards; and program initiatives to complete cleanup requirements as required to meet property transfer schedules.

6.1 Data Usability

This section summarizes unresolved issues pertaining to the validity of using historical data sets in the installation environmental restoration program.

6.1.1 BCT Action Items

The BCT at Fort Sheridan will continue to ensure the acceptability of data generated in order to provide improved information management during the BRAC environmental restoration process. The BCT should evaluate and select the appropriate data/information management system.

6.1.2 Rationale

Historical analytical data can contribute to the completion of site characterizations and risk assessments by filling data gaps. Current and future data from each data collection system (e.g., field laboratories, field screening techniques) are critical to the completion of all site characterization efforts, comprehensive conceptual model development, risk assessments, and ultimately the selection of remedial actions to protect human health and the environment.

6.1.3 Status/Strategy

The BCT is currently reviewing existing environmental documents, but no additional specific action items on data usability have been identified.

6.2 Information Management

This section identifies issues that need to be resolved with regard to managing information gathered and used in the installation environmental restoration and compliance programs. Issues include:

- ▶ Improve coordination of, access to, and management of environmental restoration and real estate-type data generated at Fort Sheridan
- ▶ Require all contractors to submit data in electronic format that can be readily used by the U.S. Army
- ▶ Establish method/procedure to be able to distribute data to parties (USEPA, IEPA, Real Property Contractors, Fort Sheridan RAB, etc.) with need for an installation-wide perspective on activities at Fort Sheridan
- ▶ Develop provisions for real time data inputs of field decisions to expedite progress on response actions or remedial actions.

6.2.1 BCT Action Items

In order to manage data usability during the environmental restoration BRAC process, the information transfer system, Defense Environmental Network Information Exchange (DENIX), should be made available to each Fort Sheridan BCT member.

6.2.2 Rationale

As the number of agencies and contractors associated with the Fort Sheridan disposal and environmental restoration program increases, it is important that all parties involved are able to share data for decision making. The establishment and maintenance of an electronic data base of sampling and analysis data and spatial (e.g., real estate maps) data is the most efficient method of sharing data among parties.

6.2.3 Status/Strategy

A summary of the current status of data usability relative to BRAC cleanup activities at Fort Sheridan and strategies which have been developed to address data usability requirements is provided below:

- ▶ All historical data generated at Fort Sheridan should be made available at the BEC office at Fort McCoy and at Fort Sheridan
- ▶ Data generated in the future will be loaded into DENIX on a quarterly basis, subject to inclusion of this requirement being added to or included into contracts
- ▶ Necessary contract modifications will be made by the U.S. Army to ensure that data from ongoing efforts are submitted electronically into DENIX.

6.3 Data Gaps

This section summarizes unresolved issues pertaining to the identification and collection of data needed to complete the Fort Sheridan environmental restoration program.

6.3.1 BCT Action Items

No data gaps have been identified at Fort Sheridan; however, as restoration activities progress additional data gaps and appropriate action items may be identified in the area of biological resources.

6.3.2 Rationale

Currently all biological analyses and assessments are based on a 1977 biological survey. There is some indication that some species have expanded their distributions and other changes could have taken place.

6.3.3 Status/Strategy

A detailed seasonal biological inventory using remote imagery and field studies will be considered by the BCT to assist in IRP and property transfer planning.

6.4 Background Levels

This section summarizes unresolved issues pertaining to documenting background levels for Fort Sheridan's environmental restoration program.

6.4.1 BRAC Cleanup Team Action Items

The following BRAC cleanup team action items should be addressed at Fort Sheridan relative to documenting background cleanup levels:

Background concentrations of elements in the environment will be established at Fort Sheridan for use in baseline risk assessment computations.

6.4.2 Rationale

Background concentration values of elements in the soil, groundwater, surface water, and sediments need to be determined before risk assessments can be conducted. The values must be representative of what is naturally occurring and what is occurring due to anthropogenic sources. These values must be concurred with by USEPA and state regulators.

6.4.3 Status/Strategy

A summary of the current status of background level documentation at Fort Sheridan and strategies to further identify background cleanup levels is still being developed.

6.5 Risk Assessments

This section summarizes unresolved issues pertaining to risk assessments required to complete the Fort Sheridan environmental restoration and compliance programs. Risk assessments have been conducted as part of the RI/RA/FS process.

6.5.1 BCT Action Items

The BCT will continue to evaluate anticipated land use during development of exposure assessments.

6.5.2 Rationale

Anticipated or known land uses at Fort Sheridan need to be considered in exposure assessment assumptions.

6.5.3 Status/Strategy

Anticipated or known land uses at Fort Sheridan have been considered and will continue to be considered in exposure assessment assumptions (see Table 6-1).

6.6 Installation-wide Remedial Action Strategy

A formal remedial action strategy which addresses the ongoing environmental restoration within the disposal and reuse parcels has not yet been developed for Fort Sheridan.

6.6.1 BCT Action Items

The BCT plans to review the BCP quarterly and update it annually including revisions to the remediation schedule. A budget addressing current and projected funding needs is being developed and will be modified as necessary to reflect changes in the BCP.

6.6.2 Rationale

The installation-wide remedial action strategy is structured to expedited remedial actions while controlling costs.

6.6.3 Status/Strategy

Environmental investigations are proceeding for the disposal and reuse parcels at Fort Sheridan as the RI/RA/FS report is finalized. The results of these investigations will be used by the BCT to develop the remedial action strategy.

TABLE 6-1. FUTURE LAND USE RISK ASSESSMENT FOR DEVELOPMENT OF REMEDY SELECTIONS

Site ID	Risks	Contaminants			Current Use	Adjacent Uses	Anticipated Uses
		Groundwater	Soil	Surface/ Sediment			
OU 1	Not a risk to human health	None	Fuels		-	Residential, commercial, recreational	Residential, recreational
OU 2	Not a risk to human health	None	Fuels	-	-	Residential, recreational, commercial	Residential, recreational
Janes Ravine	Risk to human health (HI 3.5E+00, CRL 2.1E-05)	-	-	Thallium	Open space	Residential, recreational	Recreational
Bartlett Ravine	Risk to human health (HI 1.7E-01, CRL 2.8E-04)	-	-	Methylene chloride, bis(2-ethylhexyl)phthalate	Road way/recreation	Residential, recreational, post buildings	Commercial, residential, recreational

Key: HI = Hazard Index
 CRL = Carcinogen Risk Level

6.7 Interim Monitoring of Groundwater and Surface Water

Interim groundwater monitoring is not being conducted within the disposal and reuse parcels on Fort Sheridan.

6.7.1 BCT Action Items

There are no action items related to groundwater monitoring within the disposal and reuse parcels on Fort Sheridan.

6.7.2 Rationale

The draft remedial investigation (June 1992) does not indicate a need for groundwater monitoring within the disposal and reuse parcels on Fort Sheridan.

6.7.3 Status/Strategy

If the final RI/RA/FS report indicates a need for groundwater monitoring, a strategy will be developed.

6.8 Excavation of Contaminated Materials

No additional excavation of contaminated materials has been identified for Fort Sheridan at this time. This activity will be addressed in future versions of this BCP as appropriate.

6.8.1 BCT Action Items

If ongoing environmental investigations at Fort Sheridan identify contaminated source areas that can be removed by excavation, the BCT will address this requirement through the installation-wide remedial strategy.

6.8.2 Rationale

An installation-wide remedial strategy should identify when excavation is necessary.

6.8.3 Status/Strategy

Currently, no new contaminated materials requiring excavation have been identified at Fort Sheridan. The BCT will develop a strategy for excavation activities on an as required basis.

6.9 Protocols for Remedial Design Reviews

The Fort Sheridan BCT will coordinate with other IRP contractors to develop protocols for remedial design reviews associated with zones, OUs, or sites requiring remedial action.

6.9.1 BCT Action Items

The BCT will adopt remedial design protocols as part of the remedial strategy. The BCT will also provide any decision documents and design information to the RAB, once established, and other interested parties.

6.9.2 Rationale

Review of remedial designs is critical to ensure they will achieve cleanup goals and that they are technically and administratively feasible.

6.9.3 Status/Strategy

Copies of remedial design documents will be provided to members of the BCT and other interested parties for review in a manner consistent with the protocols specified under CERCLA Section 120, and in accordance with all ARARs specified in Chapter 4 and Section 6.11 of this document.

6.10 Conceptual Models

Conceptual site models have not yet been prepared for OUs at Fort Sheridan. When prepared, conceptual site model summaries will be provided in Appendix E.

6.10.1 BCT Action Items

The BCT is in the process of developing conceptual site models.

6.10.2 Rationale

Conceptual site models will be developed based on the results of past investigations and ongoing remedial actions as they progress. The conceptual models can be used to identify data gaps and evaluate potential remedial action alternatives.

6.10.3 Status/Strategy

Past investigation results will be reviewed, evaluated, and integrated with existing data to develop conceptual models. The models will focus on source areas, potential extent of contamination, potential contaminant migration pathways, and identification of potential receptors.

6.11 Cleanup Standards

Cleanup standards are used to identify remedial alternatives capable of achieving cleanup goals, and the time at which remediation is complete. No cleanup standards have been identified for Fort Sheridan.

6.11.1 BCT Action Items

The Fort Sheridan BCT will develop a list of acceptable cleanup standards.

6.11.2 Rationale

In the absence of federal- or state-mandated cleanup standards for hazardous wastes or constituents in soils, the approach for providing remediation criteria for contaminated soils is either through the conduct of risk assessment specific to a site or the use of more generic guidance levels. The Interim Final RCRA Facility Investigation (RFI Guidance, Volume I of IV, Development of an RFI Work Plan and General Considerations for RCRA Facility Investigations (USEPA 30/SW-89-031, Waste Management Division, Office of Solid Waste, May 1989) provides health-based guidance criteria concentrations for a number of hazardous compounds and elements based on oral and inhalation exposure routes. These health-based criteria are provided for known carcinogens (Table 8-6 of the RFI guidance) and systematic toxicants (Table 8-7 of the RFI guidance). The criteria are subject to change and will be confirmed by the appropriate regulatory agency prior to use. For many compounds listed in Table 6-2 of the RFI guidance, no guidance levels have been developed. The Project Team should investigate the applicability of Illinois UST cleanup standards for sites identified in the FFA, but found to be contaminated only with petroleum products.

6.11.3 Status/Strategy

The cleanup standards will be selected after review and evaluation of ARARs, risk estimates, and review of potential future land use. For many compounds, no guidance levels have been developed. For these compounds, other ARAR criteria may apply. ARARs must be evaluated on a case-by-case basis as the need arises.

6.12 Initiatives for Accelerating Cleanup

Initiatives for expediting remedial actions have been developed for Fort Sheridan.

6.12.1 BCT Action Items

The BCT will continue to implement the initiatives for accelerating cleanup as listed in Section 6.12.3.

6.12.2 Rationale

It is desirable to initiate accelerated cleanups at Fort Sheridan to facilitate the property transfer process.

6.12.3 Status/Strategy

The following initiatives have been implemented by the Project Team for expediting response actions at the installation:

- ▶ Identify ARARs - Develop a list of ARARs by obtaining lists of ARARs from the state and other agencies and examine the Records of Decision (RODs) for similar sites in the same state to identify which ARARs are likely to apply.
- ▶ Risk-based Cleanup - Pursue negotiations with the regulators to agree on risk-based cleanup standards based on future land usage.
- ▶ Define Document Review Process - Negotiate terms with the regulatory reviewers to streamline the review process by agreeing to a definitive time cycle (such as 12 months) from the submittal of a draft FS/PP to the signing of a ROD.
- ▶ Concurrent Reviews - Develop a complete list of reviewers early and pursue parallel review tracks to eliminate delays.
- ▶ Team Approach - Build a strong team consisting of the installation Remedial Project Manager (RPM), U.S. Army representatives, contractors, and federal and state regulatory personnel that have the authority, responsibility, and accountability for implementing innovative solutions to remediate and close sites in a timely, cost-effective manner.
- ▶ Joint Preparation - Expedite the document preparation and review/approval by forming a working team with USEPA and IEPA when preparing required documents such as DDs and RODs.
- ▶ Community Involvement - Involve the community during the remedial process to encourage support at the time of site closure. By informing the community during the process, the likelihood of opposing comments during the public comment period is lessened.
- ▶ Innovative Technologies - Pursue collaborative projects using innovative technologies being researched at the U.S. Army, USEPA, state or those suggested by the contractor.
- ▶ Innovative Contracting - Maximize flexibility of contracting procedures and investigate use of level-of-effort, direct/cost reimbursement, award incentives, and other flexible contracting methods.

6.13 Remedial Actions

The Fort Sheridan BCT will evaluate the results of the RI/RA report and the CERFA report to determine additional actions that may be necessary. Potential sites requiring remediation are Landfill 2 and Landfill 3/4.

6.13.1 BCT Action Items

The BCT will review available data to select appropriate remedial alternatives and address the technical issues that affect remedial actions in a timely manner.

6.13.2 Rationale

Technical issues must be addressed in a timely manner in order to ensure that the remedial action schedules are not drastically affected. It is desirable that remedial actions required at Fort Sheridan be done prior to transfer of the disposal and reuse parcels.

6.13.3 Status/Strategy

Remedial actions will be incorporated into the post-wide remedial action strategy. Selection of remedial alternatives will be based on data from ongoing environmental investigations, evaluation of cleanup standards, and the technical and administrative feasibility of potential alternatives.

6.14 Review of Selected Technologies for Application of Expedited Solutions

Expedited implementation of remedial technologies may be desirable at Fort Sheridan to facilitate property transfer efforts.

6.14.1 BCT Action Items

The BCT will make every effort to expedite implementation of any necessary remedial technologies to facilitate transfer for the Fort Sheridan. Potential methods for expediting implementation include concurrent document preparation; fast-track design, review, and construction of remedial systems; excavation or removal of hot spots or continuing sources; and use of presumptive remedies.

6.14.2 Rationale

It is desirable to expedite evaluation of remedial technologies at Fort Sheridan in order to facilitate the property transfer process.

6.14.3 Status/Strategy

At the present time, environmental investigations are ongoing at Fort Sheridan. If these investigations indicate the need for remediation, cleanup initiatives which are capable of meeting cleanup standards, and are technically and administratively feasible will be identified. The time required to achieve cleanup standards will be considered during selection of cleanup approaches. Cleanup initiatives will be expedited as much as possible and will be incorporated into the basewide remedial action strategy.

6.15 Hot Spot Removals

There are currently no hot spot removals planned at Fort Sheridan.

6.15.1 BCT Action Items

If any hot spots are identified within the Fort Sheridan disposal and reuse parcels, the BCT will review the situation to determine if removal of the hot spots will expedite cleanup and property transfer efforts. If these efforts will be expedited by a hot spot removal, the BCT may elect to incorporate this approach into the remedial action strategy for the installation.

6.15.2 Rationale

Hot spot removals may expedite any required cleanup efforts and facilitate property transfer. If appropriate, hot spot removals may be used to achieve these goals.

6.15.3 Status/Strategy

Should information arise which would suggest the need for immediate action in order to protect human health and the environment, the BCT in conjunction with USAEC; USACE Louisville District; and the Safety, Occupational Health, and Environmental Division at Fort McCoy will evaluate the situation and make decisions regarding the best strategy for removal.

6.16 Identification of Clean Properties

The CERFA report has identified clean properties at Fort Sheridan.

6.16.1 BCT Action Items

As areas at Fort Sheridan are remediated, the BCP will be updated to reflect the changes.

6.16.2 Rationale

It is necessary to identify clean properties as part of the property transfer effort.

6.16.3 Status/Strategy

Section 3.4.5 of this BCP describes the suitability of property for transfer. The CERFA process is being used as a screening mechanism to identify properties that are immediately transferable. The properties have been designated CERFA parcels and CERFA parcels with qualifiers. Figure 3-3 illustrates these parcels which are immediately transferable. The CERFA report is currently being reviewed by the appropriate regulatory agencies. As areas at Fort Sheridan are remediated, the BCP will be updated to reflect the changes.

6.17 Overlapping Phases of the Cleanup Process

Remedial alternatives will continue to be evaluated to determine opportunities for combining remedial action efforts at Fort Sheridan.

6.17.1 BCT Action Items

The BCT will review remedial alternatives to evaluate where opportunities exist for combining remedial actions in order to eliminate duplication of effort.

6.17.2 Rationale

Overlapping remedial actions can eliminate redundant efforts and facilitate property transfer.

6.17.3 Status/Strategy

If additional investigations or remedial activities are necessary, it may be desirable to conduct them concurrently as part of the post-wide remedial action strategy to expedite property transfer efforts.

6.18 Improved Contracting Procedures

Efficient and cost-effective contracting procedures are necessary to expedite the restoration process.

6.18.1 BCT Action Items

No BCT action items regarding contracting have been identified.

6.18.2 Rationale

Any unresolved technical issues relative to improved contracting procedures will be addressed in future revisions to this BCP, as needed.

6.18.3 Status/Strategy

The U.S. Army is currently considering implementation of Total Environmental Restoration Contracts (TERC) to allow the environmental studies, remedial designs and remedial actions to be completed by one contractor under one contract in order to expedite the restoration process. Because the restoration process at Fort Sheridan is in a fairly advanced stage, implementation of TERCs may not apply. However, the U.S. Army is giving special emphasis to accelerating contracts on BRAC installations.

6.19 Interfacing with the Community Reuse Plan

Interface with a community reuse plan is desirable to expedite implementation of remedial actions, and identification and transfer of parcels to the community.

6.19.1 BCT Action Items

A draft final CRP has been prepared for Fort Sheridan (February 1994). The BCT will update the CRP as necessary. Implementation of the CRP will assist in interfacing with the community during the development of a reuse plan.

6.19.2 Rationale

Coordination with the Joint Planning Committee and their planning process will contribute to the selection of appropriate cleanup standards and facilitates implementation of remedial alternatives, ultimately resulting in successful transfer of property.

6.19.3 Status/Strategy

The BCT is considering various reuse scenarios put forward since 1991 and continuing to work with the Joint Planning Committee to evaluate restoration actions with respect to future land use. The Base Transition Coordinator attends all meetings of the Task Force and relays information to the BCT. In addition, the RAB will allow the community and the BCT to study the progress and decisions regarding Fort Sheridan.

6.20 Bias for Cleanup Instead of Studies

Whenever possible, the BCT will select early cleanup rather than additional studies of potentially contaminated sites. This approach will expedite early achievement of cleanup goals and transfer of property.

6.20.1 BCT Action Items

The BCT will make every effort to implement any necessary remedial technologies as soon as possible to facilitate transfer of the Fort Sheridan disposal and reuse parcels.

6.20.2 Rationale

Early implementation of remedial alternatives will reduce the need for additional studies of contaminated sites and will accelerate completion of cleanup activities. This in turn will facilitate property transfer efforts.

6.20.3 Status/Strategy

Where applicable, the BCT will promote cleanup instead of studies.

6.21 Expert Input on Contamination and Potential Remedial Actions

It is necessary that proper resources are used to evaluate contamination and associated remedial actions.

6.21.1 BCT Action Items

The BCT is currently utilizing the state, USEPA, USAEC, U.S. Army Environmental Hygiene Agency (USAEHA) and contractors to ensure that the proper resources are used to evaluate contamination and potential remedial actions.

6.21.2 Rationale

The use of several entities involved in the restoration at Fort Sheridan will promote an expedited property transfer process.

6.21.3 Status/Strategy

The state, USEPA, USAEC, USAEHA, and contractors will continue to ensure that the proper resources are used to evaluate contamination and potential remedial actions.

6.22 Presumptive Remedies

The USEPA has issued guidance on presumptive remedies for a few specific contamination scenarios, e.g., one of the presumptive remedies for vadose zone volatile organic compound contamination is soil vapor extraction. Some of these presumptive remedies may be applicable to Fort Sheridan if contamination scenarios are similar to those in the presumptive remedy guidance.

6.22.1 BCT Action Items

The BCT will consider presumptive remedies to expedite implementation of the installation's remedial action strategy.

6.22.2 Rationale

The use of presumptive remedies may potentially expedite the cleanup process by allowing for expedited implementation of cleanup technologies.

6.22.3 Status/Strategy

Presumptive remedies will be used where applicable. These remedies may be applicable when addressing Landfill 3/4.

6.23 Partnering (Using Innovative Management, Coordination, and Communication Techniques)

Partnering is the process of fostering cooperation and communication between key players in the BRAC process.

6.23.1 BCT Action Items

At the present time, the BCT is actively fostering partnerships with USAEC, the community, and regulatory agencies through scheduled meetings and the document review process.

6.23.2 Rationale

Close cooperation/coordination between Fort Sheridan, USAEC, the community, and regulators helps foster good working relationships, and can accelerate implementation of the installation's remedial action strategy by keeping "key players" informed of the status of environmental efforts, soliciting their input, and addressing potential concerns in the remediation process.

6.23.3 Status/Strategy

The BCT plans to continue its activities and to encourage information transfer between Fort Sheridan, USAEC, the community, and regulators.

6.24 Updating the CERFA Report and Natural/Cultural Resources Documentation

At the present time, Fort Sheridan cultural resources are well documented, although additional archaeological surveys have been recommended. The information on natural resources of Fort Sheridan, primarily biological resources, is over 17 years old and no natural resources management plan is available. The CERFA report, including parcel classifications, will be updated as necessary based on the results of ongoing restorations at Fort Sheridan.

6.24.1 BCT Action Items

The BCT will update the CERFA report, including parcel classifications, as necessary when remedial actions at Fort Sheridan are complete. The BCT will evaluate the need to update biological resource data.

6.24.2 Rationale

Updates of the CERFA report are necessary to reflect changes in parcel classification based on completion of remedial actions. It is anticipated that parcel reclassification will ultimately result in most, if not all, of the Fort Sheridan disposal and reuse parcels becoming eligible for property transfer. The update of the biological resources data will allow for more effective planning and thus expedite the transfer of the property.

6.24.3 Status/Strategy

The BCT will periodically review the CERFA report in conjunction with new data from remedial actions to determine if parcels can be reclassified to allow property transfer.

6.25 Implementing the Policy for On-Site Decision Making

If decisions leading to investigation, remediation, and transfer of Fort Sheridan can be made onsite, implementation of the installation-wide remedial action strategy will be expedited.

6.25.1 BCT Action Items

At the present time, the BCT is actively fostering partnerships with USAEC, the community, and regulatory agencies through scheduled meetings and the document review process. This will enhance the BCT's ability to make effective onsite decisions and will speed the BRAC process.

6.25.2 Rationale

Close cooperation/coordination between Fort Sheridan, USAEC, the community, and regulators helps to foster good working relationships, and can accelerate implementation of the installation-wide remedial action strategy by keeping "key players" informed of the status of environmental efforts, soliciting their input, allowing effective onsite decision making, and addressing potential concerns in the remediation process.

6.25.3 Status/Strategy

The BCT plans to continue its activities and to encourage information transfer between Fort Sheridan, the community, and regulators.

6.26 Structural and Infrastructure Constraints to Reuse

At the present time, no structural or infrastructure constraints to reuse of Fort Sheridan have been identified.

6.26.1 BCT Action Items

If structural and infrastructure constraints to reuse of Fort Sheridan are identified, the BCT will evaluate approaches for overcoming these constraints, or for alternative reuses, so the property can be transferred.

6.26.2 Rationale

Potential structural and infrastructure constraints must be overcome, or alternative reuses must be identified, to allow transfer of Fort Sheridan disposal and reuse parcels.

6.26.3 Status/Strategy

At the present time, no structural or infrastructure constraints to reuse of Fort Sheridan disposal and reuse parcels have been identified.

6.27 Other Technical Reuse Issues to be Resolved

At the present time, no other technical reuse issues have been identified.

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CHAPTER 7

► PRIMARY REFERENCES ◀

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Chemical Systems Laboratory, Aberdeen Proving Ground. 1982. Installation Assessment of Fort Sheridan and Joilet Training Area, Illinois.

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Environmental Science and Engineering. 1987. Update for the Initial Installation Assessment of Fort Sheridan, Illinois. Prepared for the Commander, Fort Sheridan, Fort Sheridan, Illinois and U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland.

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U.S. Army. 1994. Draft Memorandum of agreement between the Department of the Army, the Advisory Council on Historic Preservation, and the Illinois State Historic Preservation Officer Concerning Disposal of Fort Sheridan, Illinois.

U.S. Army. 1988. Fourth U.S. Army Memorandum 340-1, Fort Sheridan Historical Data.

APPENDIX A

► FISCAL YEAR FUNDING REQUIREMENTS/COSTS ◀

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TABLE A-1. TOTAL ENVIRONMENTAL PROGRAM SUMMARY

FUND REQUIREMENTS (\$000)								
Program	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	Total
IRP DERA	0	0	0	0	0	0	0	0
IRP BRAC	2485	6723	6775	0	0	0	0	15982
EC-CR	0	-	0	0	0	0	0	0
EC-MR	0	0	0	0	0	0	0	0
NAT/CULT	117	40	0	0	0	0	0	157
Total	2602	6763	6774	0	0	0	0	16139

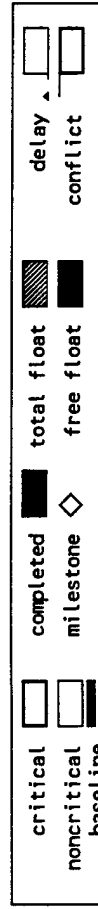
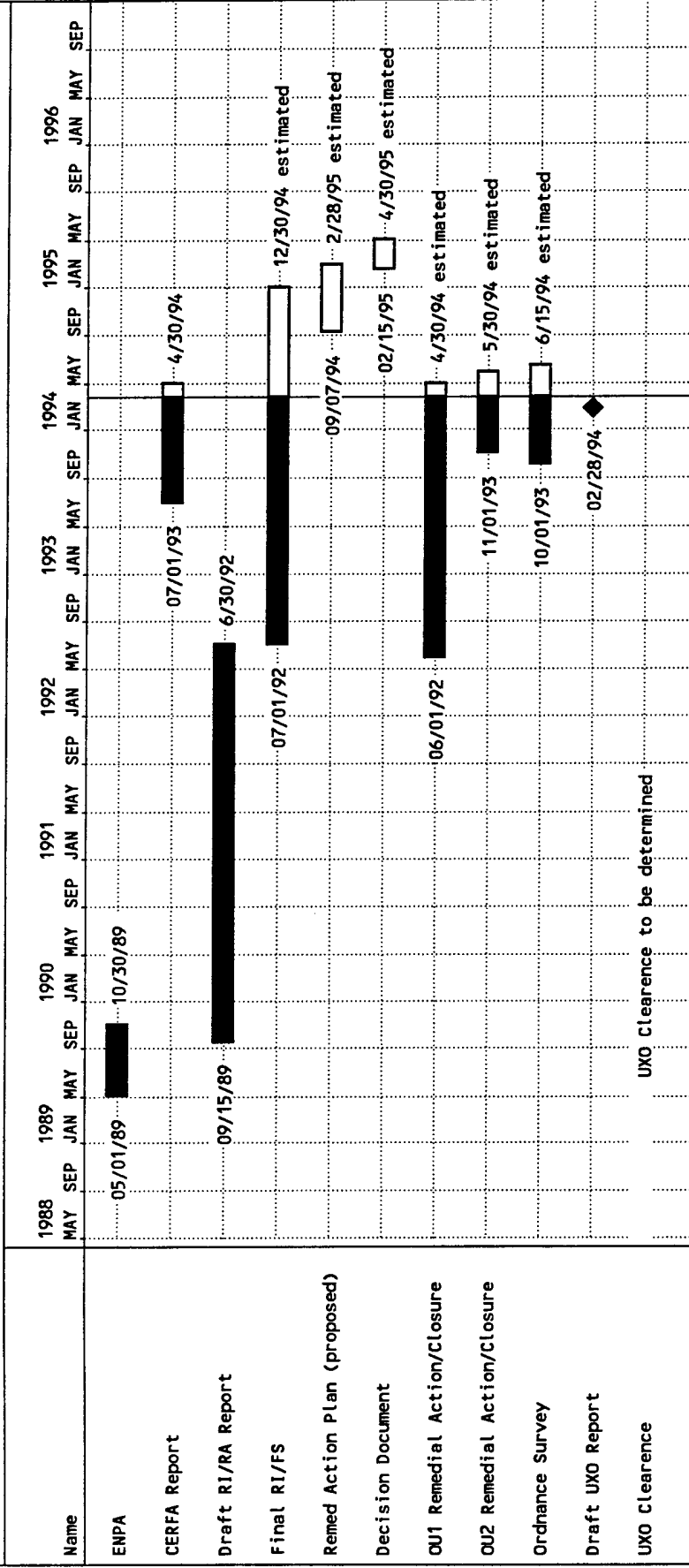
TABLE A-2. HISTORICAL ENVIRONMENTAL PROGRAM EXPENDITURES SUMMARY

FUND REQUIREMENTS (\$000)								
Program	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991	FY 1992	Total
IRP DERA	0	0	0	0	0	0	0	0
IRP BRAC	0	0	0	0	2999	512	513	4024
EC-CR	0	0	0	0	0	0	0	0
EC-MR	0	0	0	0	0	0	0	0
NAT/CULT	0	0	0	0	0	0	0	0
Total	0	0	0	0	2999	512	513	4024

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PROJECT: Fort Sheridan
 MANAGER: Allan Balliet
 CURRENT DATE: 03/25/94
 AS OF DATE: 03/25/94

Figure A-1



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APPENDIX B

► INSTALLATION ENVIRONMENTAL RESTORATION DOCUMENTS SUMMARY TABLES ◀

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TABLE B-1. PROJECT DELIVERABLES

Year	Phase	Project Title	Report No.	Sites Examined	Delivery date/ By Whom
1982	IA	Installation Assessment of Fort Sheridan and Joliet Training Area	1	Sites not defined	Chemical Systems Laboratory, 1982
1984	PA	Enhanced Preliminary Assessment Report: Fort Sheridan	2	Sites not defined	Argonne National Laboratory, 1989
1990	NEPA	Fort Sheridan, IL Base Closure Final Environmental Impact Statement	3	Sites not defined	U.S. Army, 1990
1992	RI/RA	Draft Final Remedial Investigation (RI)/Risk Assessment (RA) Report Remedial Investigation/Feasibility Study, Fort Sheridan, IL	4	Sites not defined	Environmental Science and Engineering, Inc./ U.S. Army Corps of Engineers, 1992
1992	RI/RA	Report of Findings for PCB Transformer Sampling Conducted at Fort Sheridan	5	Sites not defined	Environmental Science and Engineering, Inc. 1992
1992	IRP	Closure Report/Remove Underground Storage Tanks, Fort Sheridan, IL	6	Sites not defined	Allstates Environmental Services, Inc. 1992
1993	NEPA	Final Environmental Assessment for Disposal and Reuse of Fort Sheridan, IL	7	Sites not defined	
1993	NEPA	Literature View, Architectural Evaluation and Phase I Archaeological Reconnaissance of Selected Portions of Fort Sheridan, IL	8	Sites not defined	USACERL, 1993
1993	CERFA	Draft CERFA Report	9	Sites not defined	The Earth Technology Corporation, 1993
1994	RI/RA	Fort Sheridan Ordnance Survey (50-acre parcel)	10	Sites not defined	International Technology Corporation, 1994

TABLE B-2. SITE DELIVERABLES

	No specific site deliverables have been identified.				

**TABLE B-3. TECHNICAL DOCUMENTS/DATA
LOADING STATUS SUMMARY**

	The status of technical documents data loading has not been determined.				

APPENDIX C

► DECISION DOCUMENT/ROD SUMMARIES ◀

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APPENDIX C

► DECISION DOCUMENT/ROD SUMMARIES ◀

No Decision Documents or IRP RODs have been prepared for Fort Sheridan activities.

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APPENDIX D

► NO FURTHER RESPONSE ACTION PLANNED (NFRAP) SUMMARIES ◀

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APPENDIX D

► NO FURTHER RESPONSE ACTION PLANNED (NFRAP) SUMMARIES ◄

No formal NFRAP Decision Documents have been prepared.

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APPENDIX E

► CONCEPTUAL SITE MODEL DATA SUMMARIES ◀

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APPENDIX E

► CONCEPTUAL SITE MODEL DATA SUMMARIES ◀

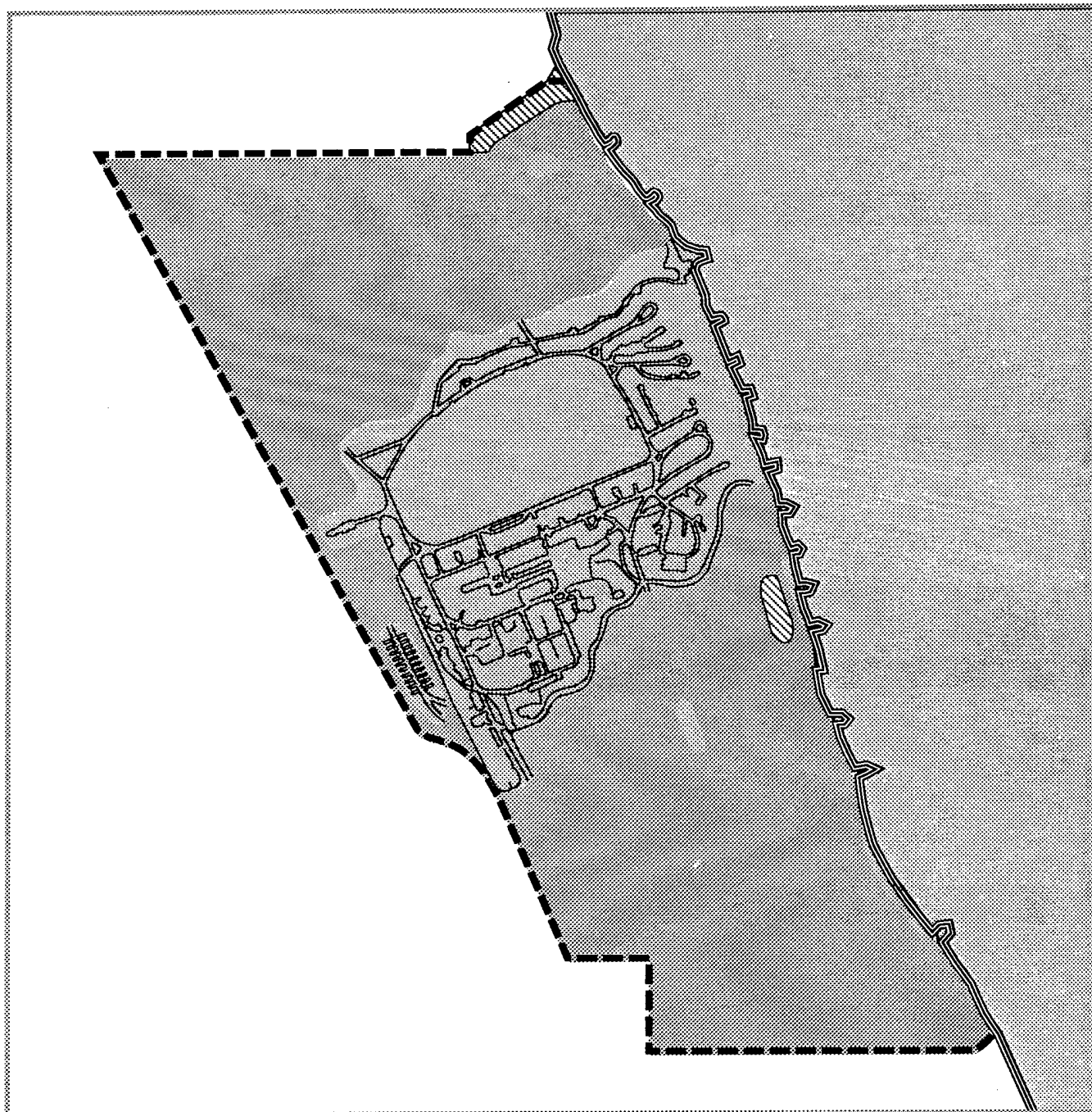
No conceptual site models have been selected for Fort Sheridan activities.

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APPENDIX F

► OTHER ANCILLARY BCP MATERIALS ◄

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EXPLANATION

-  Wetlands
-  INAI Natural Areas
-  Historic District and National Registrar Eligible Buildings
-  Installation Boundary

Distribution of
Known Sensitive
Natural Areas,
Wetlands and
Cultural Resources
on Fort Sheridan



Figure F-1

► DISPOSAL MILESTONES ◀

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TABLE F-1. DISPOSAL MILESTONES

Action	Completion Date
Army awards contract for Fort Sheridan Historic Preservation Survey	May 1993
Contractor completes Survey and submits report to Corps	September 1993
Environmental Assessment for disposal/reuse	September 1993
Army seeks approval of Historic Preservation Survey by Illinois Historic Preservation Agency (IHPA) and Advisory Council	December 1993
Complete Housing Transfer to Navy	January 1994
HUD Determination of Suitability for Homeless	January 1994
Memorandum of Agreement (MOA) to IHPA and Advisory Council for review	February 1994
Draft lease prepared for interim operation of golf course by Lake County Forest Preserve (LCFP)	February 1994
Completion of review process by IHPA and Advisory Council of Survey and MOA	February 1994
Workshop for Homeless Agencies	February 1994
Notice of Surplus Determination	February 1994
Published in Federal Register (begins 60-day "freeze" period)	March 1994
Lease golf course to LCFP	April/June 1994*
Approval by IHPA and Advisory Council of Survey and MOA	April 1994
Make available to the Redevelopment Authority	May 1994**
State and Local Screening	May 1994**
State and Local interest determined	June 1994**
Finding of No Significant Impact (FONSI) for disposal/reuse	June 1994
HUD Determination of Suitability for Homeless	August/October 1994
Determine strategy for disposal to private sector	September 1994
Scope of Work for contractor's marketing plan	November 1994
Negotiate conveyance of a golf course to LCFP	November 1994
Begin appraisal of Fort Sheridan Historic District	January 1995
Disposal Plan	January 1995
HUD Determination of Suitability for Homeless	February/April 1995
Advertise property for sale by competitive bid process	May 1995
Statement of Condition (SOC)	June 1995
Schedule bid opening/open bids	July 1995
Award bids (pending receipt of SOC)	August 1995
Close real estate transactions	August 1995

*Based on McKinney Act screening in February 1994 or approval from CERE-C to lease subject to McKinney.

**Based on McKinney Act screening in February 18 - April 19 timeframe.

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**► CULTURAL RESOURCES
MEMORANDUM OF AGREEMENT ◄**

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MEMORANDUM OF AGREEMENT
BETWEEN THE DEPARTMENT OF THE ARMY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AND THE ILLINOIS STATE HISTORIC PRESERVATION OFFICER
CONCERNING DISPOSAL OF FORT SHERIDAN, ILLINOIS

Whereas the Department of the Army (Army) has conducted appropriate inventory measures to identify National Register eligible archaeological and architectural properties at Fort Sheridan, Illinois, and determined that the closure of that installation may have adverse effects on properties that are listed in or determined to be eligible for the National Register of Historic Places as Part of the Fort Sheridan National Historic Landmark (NHL) or as separate properties, and has consulted with the Illinois State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (Council) in accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. 470 (the Act), its implementing regulations (36 CFR Part 800), and the Programmatic Agreement among the Army, the Council, and the National Conference of State Historic Preservation Officers as amended 17 July 1992 (PA); and

Whereas the Fort Sheridan Joint Planning Committee and other interested parties have participated in the consultation, and have been invited to concur in this Memorandum of Agreement (MOA);

Now, therefore, it is mutually agreed that the following stipulations will be adhered to in order to take into account the effect of the closure and disposal of Fort Sheridan on historic properties, in accordance with the Act.

Stipulations

The Army will ensure that the following stipulations are implemented:

I. Applicability

A. The terms of this agreement apply to the program to dispose of Fort Sheridan lands and properties as mandated by the Base Realignment and Closure Act of 1988 (P.L. 100-526). Only those resources that are significant -- that meet the criteria for listing in the National Register of Historic Places (National Register) -- are historic properties. Historic properties are those places listed on or eligible for listing on the National Register that hold scientific, historic, artistic, or technological importance.

B. At Attachment A is a general location map of Fort Sheridan, showing currently identified properties now on or recommended as eligible for the National Register. For the purposes of this Agreement, the Fort Sheridan Historic District (District) is the National Historic Landmark (NHL) as listed in the National Register in 1980.

II. Areas of Potential Effects

A. For the purposes of this agreement, the area of potential effects (36 CFR 800.2[c]) is the area within the installation boundaries scheduled for disposal as part of the Base Realignment and Closure action. It is possible that this action could have an adverse effect on Fort Sheridan properties that are now on or considered to be eligible for the National Register.

B. Based upon current information, the decision to dispose of Fort Sheridan lands and properties should have no adverse effect on historic properties beyond current installation boundaries.

III. Identification and Evaluation

A. The Army, in concert with an architectural historian meeting the minimum qualifications set forth in the Secretary of the Interior's Professional Qualifications Standards for Architectural History (36 CFR Part 66), has completed an inventory and evaluation of all buildings, structures, and designated landscapes at Fort Sheridan both within and outside of the District and a report of this examination has been filed with the Council and the SHPO. This study has also evaluated the significance of the shorelines, ravines, bluffs, open spaces, and parade ground.

B. The Army has also conducted a survey to locate any National Register eligible archeological sites that may be present within the boundaries of Fort Sheridan. A report documenting this survey has been filed with the Council and SHPO. This survey was conducted by an archeologist that met the minimum qualifications set forth in the Secretary of the Interior's Professional Qualifications Standards for Archeologist (36 CFR Part 66).

C. Based upon the investigations conducted pursuant to stipulations I.A. and I.B., the Army, in consultation with the Illinois SHPO, will apply the National Register Criteria (36 CFR 60.4) to all buildings, structures, landscape elements, and archeological sites to determine whether: (a) they should be included within an expanded Fort Sheridan District, and/or whether (b) they should be recognized as eligible for inclusion in the National Register either individually or as parts of a separate historic district.

D. If the Army and the Illinois SHPO agree that a building, structure or landscape element should be included in the Fort Sheridan District, they shall redraw the boundaries of the District accordingly and take into account the effects of property disposal upon the District.

E. If the Army and SHPO agree that a building, structure, designed landscape, archeological site, or any group or combination of buildings, structures, landscapes, or archeological sites lying outside the Fort Sheridan District is individually or collectively eligible for inclusion in the National Register but should not be included in the District, the Army, in consultation with the SHPO, will take into account the affects of disposal upon these properties.

F. If the Army and the SHPO disagree about the boundaries of District or the eligibility of properties within or outside of the District, the Army will refer the disagreement to the Keeper of the National Register, whose decision in the matter shall be final.

IV. Disposal of Fort Sheridan Properties

A. The Army will consult with the SHPO and the Council to make a good faith effort to dispose of the Fort Sheridan District and all other Fort Sheridan National Register eligible properties in a manner that is compatible with their historic and architectural contexts. The Army encourages input from the SHPO and other interested parties in identifying developers that would be interested in acquiring the property and preserving its historic aspects.

B. The Army will make every good faith effort to transfer the District in toto and unsubdivided. Should it prove necessary to subdivide the property in order to obtain an appropriate price, or for other reasons, the Army will consult with the parties to this Agreement to determine whether additional measures should be employed to protect historic properties, and will implement any measures agreed upon.

C. The Army will prepare a marketing plan, in consultation with the SHPO, for the District and any other National Register eligible properties located on Fort Sheridan. The marketing plan shall include the following elements:

1. An information package about the property, including but not limited to:

- * photographs of the property;
- * a parcel map;

- * information on the property's historic and architectural significance identifying elements or characteristics of the property that should be given special consideration in planning;
 - * information on Federal tax benefits for rehabilitation of historic structures;
 - * notification that the purchaser will be required to rehabilitate and maintain the property in accordance with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (U.S. Department of the Interior, National Park Service, 1983) unless renegotiated with the Illinois SHPO;
 - * notification that a restrictive covenant (Attachment B) will be included in the transfer document; and
 - * a requirement that all those offering to purchase the District or any portion thereof to include in their offerings a proposed development and management plan for the District, which shall meet the standards set forth in Attachment C. The Army will encourage offerers to prepare their development and management plans in consultation with the SHPO.
2. A distribution list of potential purchasers or transferees;
 3. An advertising plan and schedule; and
 4. A schedule for receiving and reviewing offers.

D. The Army will afford the SHPO thirty (30) days to review and concur in the marketing plan. Should the SHPO not respond within thirty (30) days, the Army will assume the SHPO concurs in the plan.

E. Upon the SHPO's concurrence in the marketing plan, the Army shall implement the plan. If concurrence can not be reached, the plan will be submitted to the Advisory Council on Historic Preservation for review and comment.

F. The Army will review all offers in consultation with the SHPO prior to acceptance.

The Army, in consultation with the SHPO may negotiate with an offerer to obtain needed changes in the offerer's development and management plan, and will approve the successful offerer's development and management plan prior to transferring the real property to which it pertains.

The Army will ensure that all real property within the District is transferred subject to the recipient's formal agreement to

implement the approved development and management plan, and that the recipient's agreement is made a part of the instrument transferring the real property and is recorded in the real estate records of Lake County, Illinois.

G. The Army will ensure that the purchaser will be notified that all rehabilitation and maintenance for historic buildings must be carried out in accordance with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitation Historic Buildings (U.S. Department of the Interior, National Park Service, 1983, hereinafter "Standards"); that the instrument transferring the property incorporate the covenant attached hereto as Attachment B; and that the covenant is recorded in the real estate records of Lake County, State of Illinois.

H. If, within a period of six (6) months, there is no acceptable offer that will conform to the rehabilitation and maintenance requirements of the Standards for the entire property or individual parcels that contain historic properties, the Army will consult with the SHPO about 1) modifying the covenant to reduce the requirements, or 2) transferring the property without a preservation covenant. In that event, the Army will consult with the Illinois SHPO and the Advisory Council about conducting appropriate Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) recordation measures for affected properties which are listed in or considered eligible for inclusion in the National Register of Historic Places.

not possible
I. To reduce possible conflicts with the over all development/marketing of the property, McKinney Act interests and state and local requirements will be addressed in the marketing plan.

V. Dispute Resolution

A. Should any party to this agreement object within thirty (30) days to any plans or other documents provided by the Army or others for review pursuant to this agreement, or to any actions proposed or initiated by the Army that may pertain to the terms of this agreement, the Army shall consult with the objecting party to resolve the objection. If the Army determines that the objection cannot be resolved, the Army shall forward all documentation relevant to the dispute to the Council. Within thirty (30) days after receipt of all pertinent documentation, the Council will either:

1. provide the Army with recommendations, which the Army will take into account in reaching a final decision regarding the dispute; or

2. notify the Army that it will comment pursuant to 36 CFR 800.6(b), and proceed to comment. Any Council comment provided

in response to such a request will be taken into account by the Army in accordance with 36 CFR 800.6(c)(2) with reference to the subject of the dispute.

B. Any recommendation or comment provided by the Council pursuant to stipulation VIII will be understood to pertain only to the subject of the dispute; the Army's responsibility to carry out all actions under this agreement that are not the subjects of the dispute will remain unchanged.

C. At any time during implementation of the measures stipulated in this agreement, should an objection to any such measure or its manner of implementation be raised by a member of the public, the Army shall take the objection into account and consult as needed with the objecting party, the SHPO, and the Council to resolve the objection.

VI. Amendments

A. Any party to this MOA may request that it be revised, whereupon the parties will consult in accordance with 36 CFR 80.13 to consider such revision.

B. Following appropriate consultations between the Army, the Council, and the Illinois SHPO, the terms of this agreement or any attachment hereto, may be amended by signing the form provided as Attachment D.

C. The Army will invite the Fort Sheridan Commission to concur in the amendment.

D. Upon execution of the amendment, each party will attach a copy of the fully executed form to their copy of this agreement, and will enter the amendment number and date on the upper right-hand corner of the first page of this agreement.

VII. Scheduled Consultation

Twelve (12) months after this agreement is executed and annually thereafter until Fort Sheridan properties have been transferred, from Army control, in accordance with the terms of this agreement, the Army, Council, and Illinois SHPO will consult to review implementation of its terms and determine whether amendments are needed. If amendments are needed, the parties to this agreement will consult in accordance with stipulation VI of this agreement to make such revisions.

VIII. Availability of Funds

The Army commitments as stipulated in this MOA will be executed subject to the availability of funds. The Army will notify the Council and SHPO if sufficient funds cannot be made available to implement all or part of the MOA requirements. Nonavailability of funds will result in a need for consultation as specified in stipulation V. Dispute Resolution/MOA Revision.

IX. Termination of Agreement

A. Any party to this MOA may terminate it by providing thirty (30) days notice to the other parties, providing that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the Army will comply with 36 CFR 800.4 through 800.6 with regard to individual undertakings covered by this MOA.

B. Execution and implementation of this MOA evidences that the Army has afforded the Council a reasonable opportunity to comment on the transfer of Fort Sheridan, and that the Army has taken into account the effects of the undertaking on historic properties.

DEPARTMENT OF THE ARMY

By: _____ Date: _____
Major General, USA Chief of Staff Forces Command

By: _____ Date: _____
Commander, Fort McCoy

ILLINOIS STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____
Susan Mogerman, State Historic Preservation Officer

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ Date: _____
Executive Director

Concur:

FORT SHERIDAN JOINT PLANNING COMMITTEE

By: _____ Date: _____

LANDMARKS PRESERVATION COUNCIL OF ILLINOIS

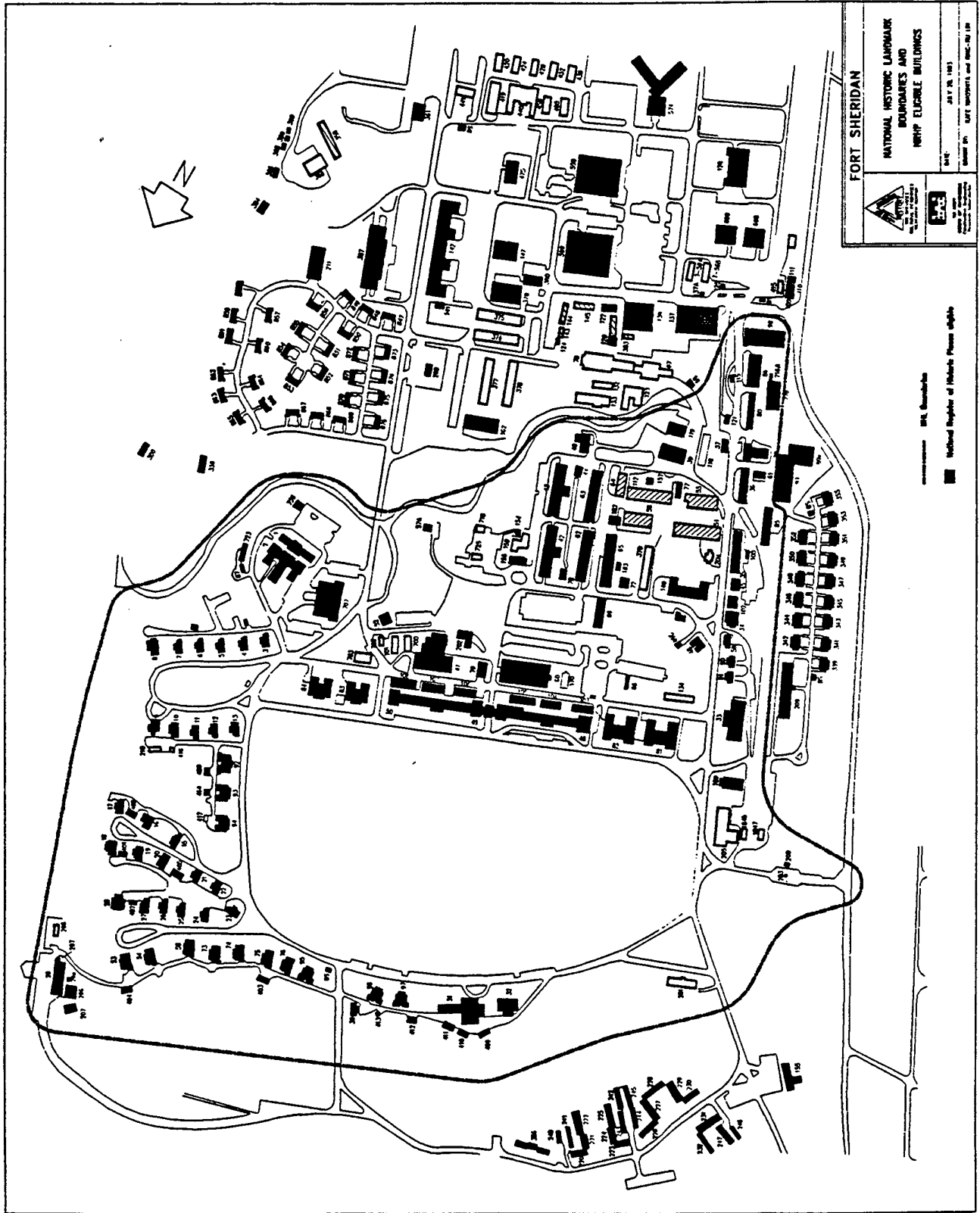
By: _____ Date: _____

NATIONAL TRUST FOR HISTORIC PRESERVATION

By: _____ Date: _____

ATTACHMENT A:

MAP OF FORT SHERIDAN,
LOCATION OF NATIONAL HISTORIC LANDMARK,
AND NATIONAL REGISTER-ELIGIBLE
STRUCTURES



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ATTACHMENT B: STANDARD PRESERVATION COVENANT

1. In consideration of the conveyance of certain real property, hereinafter referred to as (name of property), located in the County of Lake, State of Illinois, which is more fully described as: (Insert legal description.), (Name of property recipient) hereby covenants on behalf of (himself/herself/itself/), (his,her,its) heirs, successors, and assigns at all times to the United States Army and the Illinois State Historic Preservation Officer to preserve and maintain (name of property) in accordance with the recommended approaches in the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (National Park Service, 1983) in order to preserve and enhance those qualities that make (name of property) eligible for inclusion in the National Register of Historic Places.

2. No exterior construction, alteration, remodeling or other modification shall be undertaken or permitted to be undertaken on (name of property) without the express prior written permission of the Illinois State Historic Preservation Officer if not already approved in the management plan.

3. The Illinois State Historic Preservation Officer shall be permitted at all reasonable times to inspect (name of property) in order to ascertain if the above conditions are being observed.

4. In the event of a violation of this covenant, and in addition to any remedy now or hereafter provided by law, the Illinois State Historic Preservation Officer may, following reasonable notice to (name of recipient), institute suit to enjoin said violation or to require the restoration of (name of property). The successful party shall be entitled to recover all costs or expenses incurred in connection with such a suit, including all court costs and attorney's fees.

5. (Name of recipient) agrees that the Illinois State Historic Preservation Officer may at its discretion, without prior notice to (name of recipient), convey and assign all or part of its rights and responsibilities contained herein to a third party.

6. This covenant is binding on (name of recipient), (his/her/its) heirs, successors, and assigns in perpetuity, unless waived by the Illinois SHPO. Restrictions, stipulations, and covenants contained herein shall be inserted by (name of recipient) verbatim or by express reference in any deed or other legal instrument by which (he/she/it) divests (himself/herself/itself) of either the fee simple title or any other lesser estate in (name of property) or any part thereof.

7. The failure of the Illinois State Historic Preservation Officer to exercise any right or remedy granted under this instrument shall not have the effect of waiving or limiting the exercise of any other right or remedy or the use of such right or remedy at any other time.

The covenant shall be a binding servitude upon (name of property) and shall be deemed to run with the land. Execution of this covenant shall constitute conclusive evidence that (name of recipient) agrees to be bound by the foregoing conditions and restrictions and to perform to obligations herein set forth.

ATTACHMENT C: STANDARDS FOR DEVELOPMENT AND MANAGEMENT PLAN

The development and management plan for the Fort Sheridan Historic District or any part thereof, and any other National Register listed or eligible properties including subsequently defined districts must meet the following standards:

I. It must promote the preservation of the significant characteristics of the District (s) as a whole; accordingly;

A. it must address development and management of the entirety of the District(s), or if it is a plan for a portion of a District, it must relate development and management of that portion to that of the entire District, regardless of ownership; and

B. it must reflect an understanding of the historical, architectural, and landscape characteristics that make the District(s) eligible for inclusion in the National Register of Historic Places and that contribute to its character.

II. It must provide for all rehabilitation and maintenance of buildings, structures, and designed landscape elements to be performed in accordance with the recommended approaches in the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (National Park Service, 1983).

III. It must fully justify the demolition of any building or structure whose demolition is proposed.

IV. It must provide for all new construction to be performed in accordance with the recommended approaches in the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitation Historic Buildings (National Park Service, 1983).

V. It must minimize, and fully justify, any new construction or alteration of landscapes that will alter the view from any existing building or structure.

VI. If it involves use of the Parade Ground, it must provide for the Parade Ground to be maintained as landscaped open space that retains its historical character.

VII. It must provide for the Illinois State Historic Preservation Officer to review and approve:

- a. plans and specifications for rehabilitation;
- b. plans and specifications for new construction;
- c. plans and specifications for landscaping; and
- d. maintenance plans.

After acquiring any District or portion thereof, developers can enter into a separate MOA with the Illinois SHPO and the Council concerning their use and treatment of the National Register or NHL properties located on said lands.

VIII. It must provide for any instruments transferring the property from the Army to the recipient to include the following covenant:

1. In consideration of the conveyance of certain real property, hereinafter referred to as (name of property), located in the County of Lake, State of Illinois, which is more fully described as: (Insert legal description.), (Name of property recipient) hereby covenants on behalf of (himself/herself/itself), (his/her/its) heirs, successors, and assigns at all times to the United States Army and the Illinois State Historic Preservation Officer to preserve and maintain (name of property) in accordance with the (title and full citation of the development and management plan) in order to preserve and enhance those qualities that make (name of property) eligible for inclusion in the National Register of Historic Places.

2. No exterior construction, alteration, remodeling or any other thing shall be undertaken or permitted to be undertaken on (name or property) which would affect the integrity or the appearance of (name of property), except for those things that are consistent with the (title of the development and management plan) without the express prior written permission of the Illinois State Historic Preservation Officer, signed by a fully authorized representative thereof.

3. The Illinois State Historic Preservation Officer shall be permitted at all reasonable times to inspect (name of property) in order to ascertain if the above conditions are being observed.

4. In the event of a violation of this covenant, and in addition to any remedy now or hereafter provided by law, the Illinois State Historic Preservation Officer may, following reasonable notice to (name of recipient), institute suit to enjoin said violation or to require the restoration of (name of connection) with such a suit, including all court costs and attorney's fees.

5. (Name of recipient) agrees that the Illinois State Historic Preservation Officer may at its discretion, without prior notice to (name of recipient), convey and assign all or part of its rights and responsibilities contained herein to a third party.

6. This covenant is binding on (name of recipient), (his/her/its) heirs, successors, and assigns in perpetuity. Restrictions, stipulations, and covenants contained herein shall be inserted by (name of recipient) verbatim or by express reference in any deed or other legal instrument by which (he/she/it) divests (himself/herself/itself) of either the fee simple title or any other lesser estate in (name of property) or any part thereof.

7. The failure of the Illinois State Historic Preservation Officer to exercise any right or remedy granted under this instrument shall not have the effect of waiving or limiting the exercise of any other right or remedy or the use of such right or remedy at any other time.

The covenant shall be a binding servitude upon (name of property) and shall be deemed to run with the land. Execution of this covenant shall constitute conclusive evidence that (name of recipient) agrees to be bound by the foregoing conditions and restrictions and to perform to obligations herein set forth.

ATTACHMENT D: AMENDMENT FORM

AMENDMENT # _____

DATE: _____

MEMORANDUM OF AGREEMENT
BETWEEN THE DEPARTMENT OF THE ARMY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AND THE ILLINOIS STATE HISTORIC PRESERVATION OFFICER
CONCERNING DISPOSAL OF FORT SHERIDAN, ILLINOIS

1. Need for Amendment: (Describe briefly)

2. Amendment: (Specify)

DEPARTMENT OF THE ARMY

By: _____ Date: _____
Major General, USA Chief of Staff Forces Command

By: _____ Date: _____
Commander, Fort McCoy

ILLINOIS STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ Date: _____
Executive Director

**► KNOWN CULTURAL/HISTORIC
RESOURCES ON FORT SHERIDAN ◀**

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**TABLE F-2. KNOWN CULTURAL/HISTORIC RESOURCES
ON FORT SHERIDAN**

Building	Year	Function
Contributing Buildings Within the National Historic Landmark District		
01	1893	Library
02	1893	Education Center
03	1890	Officers Quarters
04	1890	Officers Quarters
05	1890	Officers Quarters
06	1890	Officers Quarters
07	1890	Officers Quarters
08	1890	Officers Quarters
09	1890	Officers Quarters
10	1890	Officers Quarters
11	1890	Officers Quarters
12	1890	Officers Quarters
13	1890	Officers Quarters
15	1890	Officers Quarters
16	1890	Officers Quarters
17	1891	Officers Quarters
18	1890	Officers Quarters
19	1890	Officers Quarters
20	1890	Officers Quarters
21	1890	Officers Quarters
22	1890	Officers Quarters
23	1890	Officers Quarters
24	1890	Officers Quarters
25	1890	Officers Quarters
26	1890	Officers Quarters
27	1890	Officers Quarters
28	1905	Officers Quarters

**TABLE F-2. KNOWN CULTURAL/HISTORIC RESOURCES
ON FORT SHERIDAN**

Continued

Building	Year	Function
29	1890	Pump Station
30	1890	Officers Quarters
31	1892	Community Club
32	1907	Guest Housing
33	1890	Museum
34	1890	Child Care
35	1890	Civilian Office
36	1890	Warehouse
37	1892	Non-commissioned Officers Quarters
38	1890	Post Office
39	1891	Warehouse
42	1890	Repair Warehouse and Office
43	1890	Repair Warehouse
44	1892	Non-commissioned Officers Quarters
45	1910	Non-commissioned Officers Quarters
46	1890	Non-commissioned Officers Quarters
47	1891	Post Exchange
48	1890	Administration
49	1891	Water Tower
50	1890	Administration
52	1891	Officers Quarters
53	1891	Officers Quarters
54	1891	Officers Quarters
56	1891	Officers Quarters
57A	1892	Magazine
59	1892	Non-commissioned Officers Quarters
60	1893	Gymnasium
61	1910	Veterinarians Office

**TABLE F-2. KNOWN CULTURAL/HISTORIC RESOURCES
ON FORT SHERIDAN**

Continued

Building	Year	Function
62	1892	Administration
63	1892	Computer Facility
65	1893	Computer Facility
66	1907	Administration
72	1892	Officers Quarters
73	1892	Officers Quarters
74	1892	Officers Quarters
75	1892	Officers Quarters
76	1892	Officers Quarters
77	1892	Vehicle Repair
78	1892	Non-commissioned Officers Quarters
79	1893	Fire Station
80	1893	Warehouse
81	1905	Administration
82	1905	Administration
83	1905	Administration
84	1905	Administration
85	1905	Warehouse
86	1905	Warehouse
87	1893	Storage
88	1893	Storage
89	1892	Storage
90	1893	Non-commissioned Officers Quarters
91	1893	Non-commissioned Officers Quarters
92	1905	Officers Quarters
93	1905	Officers Quarters
94	1905	Officers Quarters
95	1905	Officers Quarters

**TABLE F-2. KNOWN CULTURAL/HISTORIC RESOURCES
ON FORT SHERIDAN**

Continued

Building	Year	Function
96	1905	Officers Quarters
97	1905	Officers Quarters
98	1910	Warehouse
100	1897	Storage
102	1906	Non-commissioned Officers Quarters
103	1907	Administration
104	1907	Administration
105	1907	Administration
106	1907	Administration
107	1907	Administration
108	1907	Administration
Buildings Recommended for Historic District Eligibility		
339	1939	Non-commissioned Officers Quarters
341	1939	Non-commissioned Officers Quarters
342	1939	Non-commissioned Officers Quarters
343	1939	Non-commissioned Officers Quarters
344	1939	Non-commissioned Officers Quarters
345	1939	Non-commissioned Officers Quarters
346	1939	Non-commissioned Officers Quarters
347	1939	Non-commissioned Officers Quarters
348	1939	Non-commissioned Officers Quarters
349	1939	Non-commissioned Officers Quarters
350	1939	Non-commissioned Officers Quarters
351	1939	Non-commissioned Officers Quarters
352	1939	Non-commissioned Officers Quarters
353	1939	Non-commissioned Officers Quarters
355	1939	Non-commissioned Officers Quarters

**TABLE F-2. KNOWN CULTURAL/HISTORIC RESOURCES
ON FORT SHERIDAN**

Continued

Building	Year	Function
Contributing Landscapes		
Parade Ground (Golf Course) Streetscapes and Landscapes Surrounding the Parade Ground/Golf Course and those associated with the Officers Housing Bartlett and Hutchinson Ravines Cemetery		
Background Buildings Within the National Historic Landmark Area		
119	1913	Administration
140	1939	Administration
180	1932	Theater
Buildings Eligible for Individual Inclusion in the National Register of Historic Places		
142	1939	Administration
Non-contributing Buildings within the National Historic Landmark Area At Fort Sheridan		
29A	Unknown	Powerhouse
40	1967	Heating Plant
46C	1969	Detached Garage
51	1931	Motor Repair Shop
55	1932	Vehicle Storage
57C	1929	Fixed Ammunition Magazine
58	1931	Vehicle Storage
64	1928	General Purpose
71	1981	Powerhouse
112	1932	Vehicle Storage
115	1932	Diesel Station
118	1935	Administration
121	1943	Scale House
134	1941	Administration
135	1940	Oil House
154	1964	Pool Filter Building

**TABLE F-2. KNOWN CULTURAL/HISTORIC RESOURCES
ON FORT SHERIDAN**

Continued

Building	Year	Function
156	1964	Bathhouse
157	1919	General Storage
159	1964	Outdoor Swimming Pool
170	1941	Chapel
200	1978	Sentry House
201	1943	Bachelors Officers Quarters
202	1934	Exchange Service Outlet
204	1919	Family Housing
205	1941	Enlisted Service Club
206	1966	Water Storage Tank
207	1966	Water Storage Tank
210	1929	Detached Garage
216	1941	Small Arms Repair Shop
216A	1941	Flammable Materials Storehouse
296	Unknown	Underground Holding Tank
297	Unknown	Powerhouse
298	1946	Beach House
370	1941	Vehicle Storage
400-417	1940	Detached Garage
700	1941	Administration
701	1941	Administration
702	1941	Administration
703	1941	Administration
707	1967	Dispensary
718	1941	General Storage
723	1941	General Storage
724	1942	Administration
725	1942	Skill Development Center
726	1945	Condemned